



# **THE NATIONAL PRELIMINARY FLOOD RISK ASSESSMENT (PFRA)**

## **OVERVIEW REPORT**

**MARCH 2012**

**2019/RP/001/D**

**FLOOD RELIEF & RISK MANAGEMENT DIVISION  
ENGINEERING SERVICES  
OFFICE OF PUBLIC WORKS**

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- Environmental Protection Agency
- ESB
- Geological Survey of Ireland
- Health Service Executive
- National Roads Authority
- Waterways Ireland

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# GLOSSARY

## TERMS USED

|                                   |                                                                                                                                                                                                                                                                                       |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Area for Further Assessment (AFA) | Areas where, based on the Preliminary Flood Risk Assessment, the risks associated with flooding are potentially significant, and where further, more detailed assessment is required to determine the degree of flood risk, and develop measures to manage and reduce the flood risk. |
| Communities                       | Cities, towns, villages or townlands where there are a collection of homes, businesses and other properties                                                                                                                                                                           |
| Consequences                      | The impacts of flooding, which may be physical (e.g., damage to a property or monument) or a disruption (e.g., loss of electricity supply or blockage of a road).                                                                                                                     |
| Flood Extent                      | The extent of land that has been, or might be, flooded. Flood extent is often represented on a flood map.                                                                                                                                                                             |
| Hazard                            | Something that can cause harm or detrimental consequences. In this report, the hazard referred to is flooding.                                                                                                                                                                        |
| Indicative                        | This term is typically used to refer to the flood maps developed under the Preliminary Flood Risk Assessment. The maps are developed using simple methods, and generally national datasets, and are hence approximate, and not highly detailed, with some local anomalies.            |
| Point Receptor                    | Something that might suffer harm or damage as a result of flood, that is at a particular location that does not cover a large area, such as a house, office, monument, hospital, etc.                                                                                                 |
| Receptor                          | Something that might suffer harm or damage as a result of a flood, such as a house, office, monument, hospital, agricultural land or environmentally designated sites.                                                                                                                |
| Risk                              | The combination of the probability of flooding, and the consequences of a flood.                                                                                                                                                                                                      |

|                  |                                                                                                                                                                                                                                                                                     |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Significant Risk | Flood risk that is of particular concern nationally. There is not a prescriptive definition of 'significant' flood risk based on black-and-white rules. Section 6.1.1. of the report sets out guiding principles in defining areas that might potentially be at 'significant' risk. |
| Vulnerability    | The potential degree of damage to a receptor (see above), and the degree of consequences that would arise from such damage.                                                                                                                                                         |

## ACRONYMS

|       |                                                                                                                                                                                                 |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AFA   | Area for Further Assessment (see above)                                                                                                                                                         |
| CFRAM | Catchment Flood Risk Assessment and Management – The 'CFRAM' Studies will develop more detailed flood mapping and measures to manage and reduce the flood risk for the AFAs – See Section 1.1.2 |
| DTM   | Digital Terrain Model – A computer-based digital representation of the land surface (location and elevation)                                                                                    |
| GIS   | Geographical Information System – A computer-based method for analysing geographical information and preparing maps                                                                             |
| PFRA  | Preliminary Flood Risk Assessment – See Section 1                                                                                                                                               |

# 1. INTRODUCTION

The Preliminary Flood Risk Assessment (PFRA) is a national screening exercise, based on available and readily-derivable information, to identify areas where there may be a significant risk associated with flooding.

The purpose of this report is to present an overview of the national PFRA; the draft outcomes of which were issued for public consultation in August 2011. The PFRA was finalised in December 2011, following review of all submissions made during the public consultation and any further information arising.

## 1.1. PRELIMINARY FLOOD RISK ASSESSMENT (PFRA)

The objective of the PFRA is to identify areas where the risks associated with flooding might be significant. These areas (referred to as Areas for Further Assessment, or 'AFAs') are where more detailed assessment will then be undertaken to more accurately assess the extent and degree of flood risk, and, where the risk is significant, to develop where possible measures to manage and reduce the risk. The more detailed assessment, that will focus on the AFAs, will be undertaken through Catchment Flood Risk Assessment and Management ('CFRAM') Studies (see Section 1.1.2).

The 'Floods' Directive (see Section 1.1.1) does not provide a definition for 'significant' flood risk. A highly prescriptive definition is not suitable given the preliminary nature of the PFRA, but guiding principles are set out in Section 6. It should however be remembered that, while flooding of one home will be traumatic to the owner or residents of that home, the PFRA needs to consider what is nationally or regionally significant flood risk.

The PFRA has been undertaken by:

- Reviewing records of floods that have happened in the past
- Undertaking analysis to determine which areas might flood in the future, and what the impacts might be, and,
- Consulting with the Local Authorities and other Government departments and agencies

This assessment has considered all types of flooding, including natural sources, such as that which can occur from rivers, the sea and estuaries, heavy rain and groundwater, and the failure of built infrastructure. It has also considered the impacts flooding can have on people, property, businesses, the environment and cultural heritage.

### 1.1.1. The 'Floods' Directive

The PFRA is a requirement of the EU 'Floods' Directive<sup>1</sup>. The text of the Directive that sets out the requirements of the PFRA (Articles 4 and 5) is reproduced in Appendix A.

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<sup>1</sup> Directive 2007/EC/60 of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks

The 'Floods' Directive was transposed into Irish law by Statutory Instrument (SI) No. 122 of 2010<sup>2</sup>. The SI sets out the responsibilities of the Office of Public Works (OPW – The designated 'Competent Authority' for the 'Floods' Directive) and other public bodies in the implementation of the Directive.

### **1.1.2. The CFRAM Studies**

The National CFRAM Programme was initiated to implement some of the key recommendations of the Report of the Flood Policy Review Group<sup>3</sup>. In particular, it was developed to prepare flood maps and flood risk management plans, focusing on areas where the risk is understood to be most significant. These areas of focus (the AFAs) are being identified through the Preliminary Flood Risk Assessment (PFRA).

The CFRAM Studies were commissioned during 2011 and early 2012, and will produce detailed flood maps for the AFAs in 2013, in line with the EU 'Floods' Directive. The Studies will also produce Flood Risk Management Plans in 2015 that will set out a long-term strategy and defined and prioritised measures, to reduce and manage the flood risk.

## **1.2. PUBLIC CONSULTATION ON THE PFRA**

The 'Floods' Directive requires Member States to publish the PFRA once completed. However, the OPW has also publicly consulted on a draft of the PFRA before it was finalised, published and reported to the European Commission.

This report sets out the approach, methodologies and outcomes of the PFRA and was issued for public consultation. Details of the outcome of the public consultation process are available from the Report on the Designation of Areas for Further Assessment, which is available on the National CFRAM Programme website. No changes to the PFRA process were deemed necessary as a result of the consultation process and submissions received.

The PFRA has however involved extensive work and it is not possible to provide all relevant information in one report. This report therefore provides only an overview of the PFRA.

More detailed information on a range of aspects of the PFRA is provided in a number of technical reports. These reports are listed in Appendix B, and are available from the National CFRAM Programme website, [www.cfram.ie](http://www.cfram.ie), along with PFRA maps that indicate:

- Indicative areas potentially prone to flooding from natural sources of floodwater based on the preliminary analysis (Section 4.2), and,
- Probable and possible Areas for Further Assessment (AFAs) (Section 6).

---

<sup>2</sup> Statutory Instrument No. 122 of 2010, European Communities (Assessment and Management of Flood Risks) Regulations 2010 (Prn. A10/0432)

<sup>3</sup> The Report of the Flood Policy Review Group, OPW, September 2004

## **2. PFRA PROCESS**

The Preliminary Flood Risk Assessment (PFRA) is intended to identify communities (i.e., cities, towns, villages, townlands), facilities and sites (e.g., environmentally designated areas) around the country where the risk due to flooding might potentially be significant (i.e., the Areas for Further Assessment, or 'AFAs', see Section 6). The AFAs will then be subject to more detailed assessment to more accurately analyse the flood risk under the CFRAM or parallel Studies. Where this more detailed assessment confirms that there is indeed a significant risk of flooding, then measures to reduce and manage the risk will be investigated.

It is important to note that the PFRA is not a detailed assessment of flood risk. It is rather a broad-scale assessment, based on available or readily-derivable information, to identify where there is a genuine cause for concern that may require national intervention and assessment, rather than locally developed and implemented solutions.

### **2.1. OVERVIEW OF PFRA APPROACH**

Three key approaches have been used in undertaking the PFRA to identify the AFAs. These are:

- Historic Analysis: The use of information on floods that have happened in the past (Section 3)
- Predictive Analysis: Assessment of areas that could be prone to flooding, as determined by predictive techniques such as modelling, analysis or other calculations, and of the potential damage that could be caused by such flooding (Section 4)
- Consultation: The use of local and expert knowledge of the Local Authorities and other Government departments and agencies to identify areas prone to flooding and the potential consequences that could arise (Section 5)

Other EU Member States have used similar approaches to undertaking the PFRA as that undertaken in Ireland.

The provisional identification of the AFAs has involved interpretation of information from all three of the above approaches. The final designation of the AFAs also took into account information and views provided through the public consultation and arising from on-site inspections that were undertaken in parallel with the consultation. A description of this process and its outcomes is provided in Section 6.

### **2.2. FLOOD RISK**

Flood risk is a combination of the probability and degree of flooding (the 'hazard') and the damage caused by the flood (the 'consequences'). What constitutes hazard and consequences are described below.

### **2.3. FLOOD HAZARD – SOURCES OF FLOODING**

Flood hazard can arise from a range of sources of flooding.

The 'Floods' Directive includes a definition of flooding in Article 2(1). This is an open definition, and as such the PFRA considers flood risk arising from any major source of flooding, including:

- Natural Sources:
  - Rivers (fluvial, including increased flow from snowmelt)
  - Sea (coastal and tidal)
  - Groundwater
  - Rainfall (pluvial)
  - Tsunami (due to earthquakes, seabed landslips)
- Infrastructural Sources:
  - Urban Storm-water Drainage Systems (due under capacity)
  - Reservoirs (due to breach of walls / embankments)
  - Water Supply Systems (due to burst water mains)
  - ESB Infrastructure (hydropower dams and embankments)
  - Waterways Ireland Infrastructure (embanked canals)

Floods from sewerage systems (i.e., foul sewers) have been excluded from the scope of the PFRA on the basis that:

- They are typically localised and hence would generally cause limited damage.
- They would typically arise from blockage or other unpredictable incidents, and so it cannot be readily projected where they would be likely to occur, and hence where significant flood risk due to this source might exist.

Floods could also arise from sources other than those listed above. However, these would typically include floods for which the adverse consequences would never be deemed to be 'Significant', or which could not reasonably be predicted to occur, at any given location, based on the combination of their probability and degree of consequence. As such, these types of floods are excluded from the scope of the PFRA. Examples of such floods might include:

- Minor floods (e.g., overflowing appliances, burst plumbing, surcharging of septic tanks, local blockage of culverts, pipes or gullies, etc.)
- 'Freak' occurrences (e.g., over-turned water tanker, tsunami generated from a meteor strike, etc.)

### **2.4. CONSEQUENCES OF FLOODING**

The 'Floods' Directive [Article 2(2)] defines flood risk as including potential adverse consequences for human health, the environment, cultural heritage and economic activity. The ways in which each of these consequences have been considered are outlined in the following sections.

### **3. HISTORIC FLOOD RISK ASSESSMENT**

#### **3.1. INTRODUCTION**

The 'Floods' Directive [Article 4(2)(b)&(c) – see Appendix A] requires an assessment of past floods as part of the PFRA. Areas that have flooded and suffered significant adverse consequences from flood events in the past may continue to be subject to significant flood risk. An assessment of historic flood events has therefore been undertaken to identify possible AFAs.

Detailed information on flood extents (i.e., the areas subject to flooding) is generally not available except for a very small number of floods. Some of the requirements of the PFRA, namely Article 2(b) (past flood extents and conveyance routes), therefore cannot be derived. However, the predictive assessment undertaken (see Section 4) overcomes this deficit as it provides more comprehensive and useful information on flood extents than could be produced from past floods.

Descriptions of the reported past floods are provided via the national flood hazard mapping website ([www.floodmaps.ie](http://www.floodmaps.ie)), as described below.

This section outlines the approach taken for the flood risk assessment based on historical flood data, which includes;

- For natural sources of flooding:
  - An assessment of where floods have happened in the past (Section 3.3.2)
  - An assessment of the damage caused by past floods (Section 3.3.3)
- The assessment of floods that have happened in the past arising from infrastructure failure (Section 3.4)

How the outcomes of these assessments were used in designating AFAs is outlined in Section 3.5.

#### **3.2. AVAILABLE HISTORIC FLOOD INFORMATION**

In 2006 the OPW launched the national flood hazard mapping website. This website displays the locations, and where available the extents, of flood events that have happened in the past and makes available a range of supplementary information, such as photographs, reports and newspaper articles, related to those past events.

The information provided through the website is that which was held and made available by the OPW, Local Authorities and a range of other Government Departments and agencies during the national data collection and verification project to develop the national flood mapping website, or which has been captured and entered for floods that have happened since the launch of the website. The database underlying the national flood mapping website contains information on over 5,000 past flood events throughout the country.

The majority of the information provided through the website relates to floods from natural sources of flooding (see Section 2.3), although there are no records on tsunami floods given the absence of any recent events (see Section 3.3.2.2). Information on a limited number of past flood events from infrastructural sources are provided, but it was considered that these records should be supplemented by additional data collection under the PFRA process through the relevant authorities (see Section 3.4).

To further supplement the above information, the knowledge of OPW staff on past floods and areas prone to flooding was also captured.

### **3.3. NATURAL SOURCES OF FLOOD RISK**

#### **3.3.1. Defining Spatial Areas for Analysis**

To undertake the analysis, it was necessary to define certain spatial areas (e.g., town boundaries or townlands) within which the information on past floods could be assessed. The boundaries that were utilised in the historical analysis came from a number of sources. These were:

- Town boundaries published on the Central Statistics Office website
- Townland boundaries
- Defined areas around other locations (e.g., villages or other small communities) where flood risk had previously been identified

#### **3.3.2. Historic Hazard**

##### **3.3.2.1. Flood Hazard Mapping Database**

For the significant majority of records of past floods in the database that supports the flood hazard mapping website, no information was available on the impacts of the floods and the damages caused. However, it was considered important that other sources of information should also be considered in the analysis of historical flood events. In the absence of damage information, the location and number of floods can indicate the degree of flood hazard in a given location. Where this indication of hazard is coincident with areas that could potentially suffer damage in the event of a flood (e.g., a village or town), then such an area might be subject to flood risk, with higher numbers of past floods indicating a potentially greater degree of flood risk.

Towns, Townlands and other spatial areas (see Section 3.3.1) where records were available for past flood events were assigned a historic hazard category based on the criteria set out in Table 3.1.

The locations assigned a Historic Hazard Category of 2 or above are listed, with the recorded number of past floods and reported locations of recurring flooding, in Appendix C.1. The way this information was used in designating AFAs is set out in Section 3.5.

*Table 3.1: Categorisation of Historic Hazard*

| Category | No. of Specific Past Floods (Dated / Undated) | No. of Locations of Reported Recurring Floods |
|----------|-----------------------------------------------|-----------------------------------------------|
| 4        | 10+                                           | 15+                                           |
| 3        | 5 – 9                                         | 10 – 14                                       |
| 2        | 2 – 4                                         | 5 – 9                                         |
| 1        | 1                                             | 1 – 4                                         |
| 0        | 0                                             | 0                                             |

### **3.3.2.2. Past Tsunami Floods**

No records were found in the national flood mapping website database related to floods caused by tsunami.

Further investigation, with the assistance of the Geological Survey of Ireland, has revealed that some past tsunami, or tsunami-like, floods have occurred in Ireland. These include (pers comms, GSI):

- 1755 (1<sup>st</sup> November): An earthquake of approximate magnitude of 8.7M<sub>w</sub> occurred approximately 200km south-west of Portugal. The earthquake and resulting tsunami devastated Lisbon in Portugal, and there are observations of the tsunami waves affecting the south and south-west coast of Ireland over a period of several hours.
- 1761: Resulting from an earthquake similar to the 1755 event, tsunami waves were observed in Kinsale (up to 2 feet high), in Carrick-on-Suir (4 foot rise in water level), Waterford, Dungarvan and New Ross
- 1854: Eye witness accounts of tsunami-like waves in Wexford, but no source has been identified for the event

Other earthquakes have since occurred in the same area as the 1755 event without observation of tsunami waves affecting Ireland. Other reports of large waves have also been recorded, but it is not clear that these are due to tsunami rather than other surge or meteorological causes.

### **3.3.3. Historic Risk**

For a small minority of the past floods in the database of the flood hazard mapping website, information was available on the damage caused by the floods, i.e., financial damage or the number of properties flooded. This information was used in the PFRA as set out below.

#### **3.3.3.1. Financial Damage**

The financial damage information available for past floods was reviewed and validated. The locations and events for which valid (i.e., community-specific rather than regional) financial damage was made available are listed in Appendix C.2. The way this information was used in designating AFAs is set out in Section 3.5.

As the financial damage for all of the communities listed is substantial, all of the communities have been designated as probable or possible AFAs (see Section 6).

### **3.3.3.2. Properties Flooded**

Towns, Townlands and other spatial areas (see Section 3.3.1) for which information was available on the number of properties flooded during a past event were assigned a historic risk category based on the criteria set out in Table 3.2.

*Table 3.2: Categorisation of Historic Risk: No. of Properties Flooded*

| Category | No. of Properties Flooded |
|----------|---------------------------|
| 4        | 50+                       |
| 3        | 10 – 49                   |
| 2        | 1 – 9                     |
| 1        | 0                         |

The locations and events for which the number of properties flooded was available and provided to the OPW are listed in Appendix C.3. The way this information was used in designating AFAs is set out in Section 3.5.

## **3.4. INFRASTRUCTURAL SOURCES OF FLOOD RISK**

The information in the flood hazard mapping database is generally limited to flooding from natural sources. Flooding can also arise from infrastructure failure. The historic flood risk assessment for this type of flooding is discussed below.

### **3.4.1. Local Authority Infrastructure**

The Local Authorities are responsible for the following infrastructure that can give rise to flooding, and for undertaking the PFRA with respect to these sources:

- Urban Storm-Water Drainage System
- Reservoirs
- Water Supply Systems

It should be noted that foul sewerage systems are excluded from the scope of the PFRA (see Section 2.2), and that floods from combined sewerage systems are caused in the same way as storm-water drainage systems, and are hence included under that category.

The Local Authorities have reported during the PFRA preparation process further information (i.e. information not included in the database underlying the flood hazard mapping website) on notable past floods arising from infrastructural sources in the locations set out in Appendix C.4.

No past floods due to breach or failure of reservoirs embankments or walls have been reported by the Local Authorities.

#### **3.4.2. ESB Infrastructure**

The PFRA Report by the ESB<sup>4</sup> discusses past floods related to, or passing through, ESB infrastructure.

#### **3.4.3. Waterways Ireland Infrastructure**

The PFRA Report by Waterways Ireland<sup>5</sup> discusses past floods related to Waterways Ireland infrastructure.

### **3.5. USE OF HISTORIC HAZARD AND RISK OUTCOMES**

Subject to the consideration of other information related to a given location, those communities assigned Category 4 for historic risk or hazard were designated as probable or possible AFAs. The other assigned categories of historic hazard or risk were taken into account along with all other sources of information in designating communities as AFAs or otherwise (see Section 6).

The outcomes of the PFRA, taking into account information on past floods from natural sources and infrastructure, is outlined in Section 6.3.

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<sup>4</sup> Preliminary Flood Risk Assessment Report, ESB, 2011

<sup>5</sup> Preliminary Flood Risk Assessment, Waterways Ireland, 2011

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## **4. PREDICTIVE ANALYSIS**

### **4.1. INTRODUCTION**

Historic flood event information is, by its nature, limited only to areas and location where past floods have happened and where information on those floods has been captured. An alternative method of assessing flood risk is by using what is called a 'predictive' approach, i.e., by examining the potential extent and resulting damages of floods that could happen in the future.

This involves the use of computational models, data on topography and analysis of flood flows and flood levels that could happen in the future to determine areas potentially prone to flooding (the 'hazard'), and an assessment of the damage that could arise in the event of flooding (the 'consequences'). The flood risk is a function, or combination, of the hazard and consequences.

The 'Floods' Directive [Article 4(d)] makes it optional as to whether or not Member States undertake a predictive assessment (i.e., an assessment of the potential consequences of future floods). The OPW has determined that it is appropriate for a predictive assessment to be undertaken for Ireland, given the lack of available information on past flood extents, and the broader need for flood maps with a national coverage.

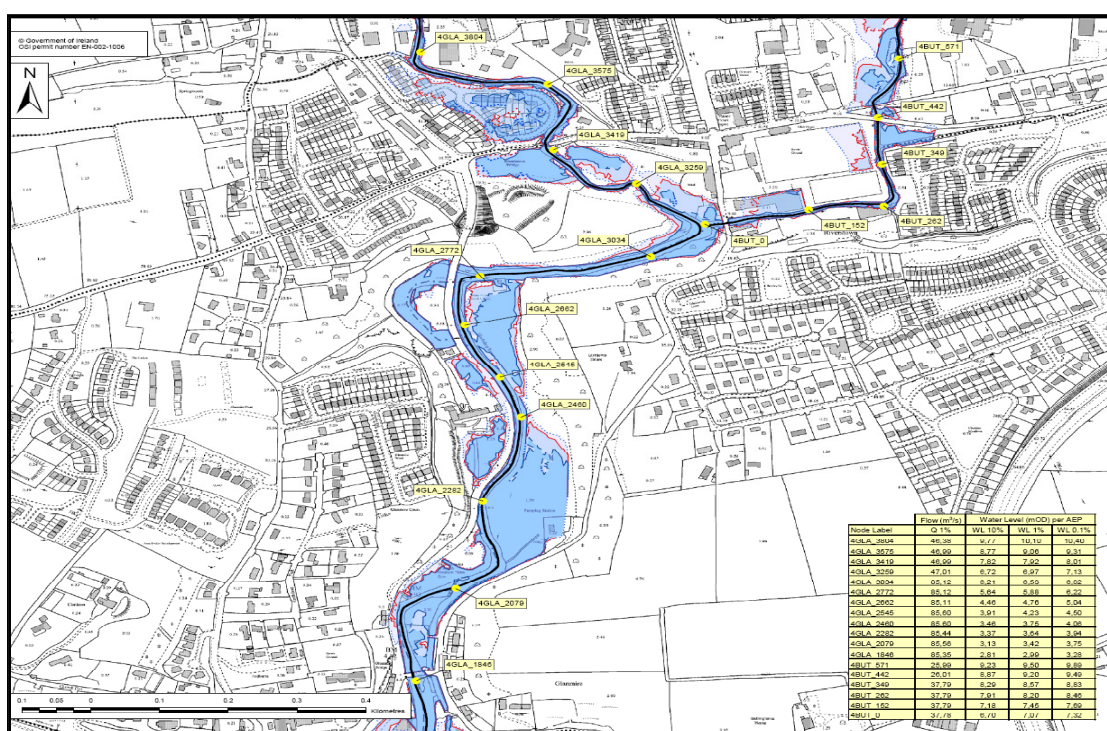
This section sets out how the predictive assessment was undertaken, including the preparation of indicative flood maps, the assessment of potential damage that could arise if different types of 'assets' were to flood, and how the risk assessment was undertaken on the basis of this information.

### **4.2. INDICATIVE FLOOD MAPPING**

As outlined above, flood risk is a combination of flood hazard and the potential consequences arising. A common and useful way for representing flood hazard is by way of flood maps that show the projected extents of flooding for a given likelihood, or probability, of flooding. An example of a flood map is shown in Figure 4.1, where the predicted flood extents are shown for three flood event probabilities, with different shades of blue indicating the areas projected to be prone to flooding for different probabilities or likelihood.

The likelihood of a flood is typically expressed as the percentage probability of a given severity of flood occurring or being exceeded at a given location in any given year. For example, a 1% annual exceedance probability (AEP) flood has a 1%, or 1 in a 100, chance of occurring or being exceeded this year, or next year, or the following year, etc. The 1% flood is often referred to as the 100-year flood because, on average over a long period of time, it is likely to occur or be exceeded once every hundred years. However, it should be noted that this return period is a long-term average, and it is possible that the 1% (or 100-year) flood could happen twice in two years, and then possibly not for another 200 years.

Figure 4.1: Example of Flood Map



Flood maps can be developed in a range of ways, using different levels of analysis. Detailed flood maps, such as that shown in figure 4.1, are developed using hydraulic modelling, which is a complex and expensive process, and is the level of analysis that is being, or will be, undertaken for the AFAs during the CFRAM Studies. However, for the PFRA, which is a screening exercise based on available or readily-derivable information, a simpler and less expensive process was required to prepare the flood mapping information.

At the outset of the PFRA, flood maps with a national coverage were not available for any source of flooding. This section outlines the processes undertaken to prepare indicative flood maps for a range of flood sources, as set out in Section 2.3.

It should be stressed that the PFRA flood maps are *indicative*. They have been developed using simple and cost-effective methods that are suitable for the PFRA. They should not be used for local decision-making or any other purpose without verification and seeking the advice of a suitable professional.

#### 4.2.1. Indicative Fluvial Flood Mapping

A project was commissioned, and undertaken by Compass Informatics, to prepare indicative fluvial flood maps suitable for the PFRA. A Technical Report<sup>6</sup> describes the process for the development of these maps in detail. Set out below is a summary description of the process and the mapping produced.

<sup>6</sup> Preliminary Flood Risk Assessment, Fluvial Flood Hazard Mapping – Normal Depth Mapping, Compass Information, 2011

To determine fluvial flood levels and then flood extents, using any level of hydraulic analysis, estimates of the flood flows are required. The OPW generated flood flow estimates for a range of flood event probabilities at major nodes every 500m, and upstream and downstream of confluences, on the entire river network in the country (based on the EPA 'blue-line' GIS data). These were generated using equations derived through the OPW Flood Studies Update research programme. A typical Irish river will carry what is called the 'mean annual flood' in-bank, with flows greater than this spilling out as flood water. The out-of-bank, or flood, flow was hence determined at the nodes by deducting the mean annual flood flow from the derived flood flow for the relevant flood event probability.

At each major node, and at intermediate nodes at 100m spacing, a floodplain cross-section was derived from the OPW's national Digital Terrain Model (DTM), which is a computer model of the topography of surface of the land. A hydraulic calculation, using Manning's equation, was then used to calculate a flood level for the given out-of-bank flood flow, based on the cross-section, slope and resistance to flow. This level was extrapolated across the cross-section derived as above to identify the outer extents of the flood on that cross-section. The outer extents of the flood were then joined up (linearly) to create a map of the projected flood extents. This process was undertaken, for the national river network for all nodes with a catchment area greater than 1 km<sup>2</sup>, for three flood event probabilities (the 10%, 1% and 0.1% AEP events) to create the indicative national fluvial flood maps.

It should be noted that the maps have certain limitations and potential sources of local error, notably:

- Local errors in the DTM: For example, where bank-side vegetation was not filtered out of the DTM, the flood levels are likely to be over-estimated
- Local channel works: The method assumes a certain channel capacity, so the flood levels are likely to be over-estimated where works have been carried out to enhance channel capacity (e.g., where arterial drainage schemes have been completed)
- Flood defences: The method does not take account of flood defences
- Channel structures: The method does not take account of structures in or over the channel, and so where such structures exist and constrict flow capacity, the flood levels may be under-estimated

Further, Some buildings and other infrastructure may be shown as being within the flooded area, but may in reality be above the flood level.

The indicative national fluvial flood maps were included in the Draft PFRA Maps, provided in a separate volume, for the purposes of consultation on the PFRA.

#### **4.2.2. Indicative Seawater Flood Mapping**

Consultants RPS, in conjunction with the OPW, undertook a project to develop maps indicating coastal and estuarine areas prone to flooding from the sea. The predicted flood extents which were produced under the Irish Coastal Protection Strategy Study (ICPSS)<sup>7</sup> are based on analysis and modelling. The project included:

- Analysis of historic recorded sea levels
- Numerical modelling and statistical analysis of combined tide levels and storm surges to estimate extreme water levels along the national coastline for defined probabilities
- Calculation of the extent of the predictive flooding, by comparing calculated extreme tide and surge waters levels along the coast with ground level based on a Digital Terrain Model (DTM).

The maps have been produced at a strategic level to provide an overview of coastal flood hazard and risk in Ireland. It should be noted that the maps have certain limitations and potential sources of local error, notably:

- The flood extents are determined by horizontal projection in-land of the extreme sea levels. This may over-estimate the extent of flooding in large, flat areas as the method does not account for the inland propagation and then recession of the flooding following the rise and fall of the water levels according to the tidal cycle
- Flood defences, structures in or around river channels and other minor or local features have not been included in the preparation of the maps
- The methods (and maps) do not take account of (or represent flooding from) wave action or overtopping

These indicative national coastal flood maps were included in the Draft PFRA Maps, provided in a separate volume, for the purposes of consultation on the PFRA.

#### **4.2.3. Indicative Groundwater Flood Mapping**

A project was commissioned, and undertaken by Mott MacDonald Ltd, to prepare indicative groundwater flood maps suitable for the PFRA. A Technical Report<sup>8</sup> describes the process for the development of these maps in detail. Set out below is a summary description of the process and the mapping produced.

The methodology used to map areas potentially prone to groundwater flooding was evidence-based and incorporates the experience of groundwater experts at the Geological Survey of Ireland, Trinity College Dublin, and the Environmental Protection Agency. The evidence indicates that the vast majority of extensive, recurring groundwater floods originate at turloughs, and so this was the focus of the groundwater mapping project.

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<sup>7</sup> Irish Coastal Protection Strategy Study, Phase 2, 3a and 3b – South East, North East and South Coasts – Technical Reports, RPS Consultants, 2010 & 2011

<sup>8</sup> Preliminary Flood Risk Assessment, Groundwater Flooding, Mott Macdonald, 2010

It was determined during the early stages of the project that it would not be possible to develop model-based flood maps for groundwater emergence due to a lack of data, and so alternative methods were required. The mapping of potential groundwater extents from turloughs was hence developed using the following methods, in descending order of preference:

- 1) The use of existing mapping of past groundwater flood events (e.g., from 1994/95, and late 2009), developed from ground-based observation, aerial photography or satellite imagery and the maximum extents observed
- 2) The delineation of flood extents around turloughs based on an assumed height of flooding of 4m above the base elevation of the turlough (the median of observed ranges) using the OPW's national DTM, with manual adjustment to ensure pragmatic extents
- 3) The use of records of past groundwater flood events to validate or adjust the flood extents derived using the other approaches

It should be noted that due to the absence of a model-based approach, only one set of flood extents were generated, with no specific event probability (although where observed flood data was used, these are likely to represent quite extreme events).

The indicative national groundwater flood maps were included in the Draft PFRA Maps, provided in a separate volume, for the purposes of consultation on the PFRA.

#### **4.2.4. Indicative Pluvial Flood Mapping**

A project was commissioned, and undertaken by HR Wallingford Ltd, to prepare indicative pluvial flood maps suitable for the PFRA. A Technical Report<sup>9</sup> describes the process for the development of these maps in detail. Set out below is a summary description of the process and the mapping produced.

The process for developing the pluvial flood extent maps was based on 'dropping' various depths and intensities of rainfall over a range of durations, and modelling how that rainfall would flow over the land and, in particular, pond in low-lying areas.

The rainfall events (depth, duration and intensity) were derived from the rainfall analysis undertaken by Met Eireann on behalf of the OPW for the Flood Studies Update research programme.

The amount of rainfall that was absorbed by the ground or, in urban areas, drained by the urban storm-water drainage system, and hence deducted from the water that would flow overland and pond, was estimated using the Flood Studies Update methodologies and from analysis against mapped extents based on more detailed modelling (in Dublin) respectively.

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<sup>9</sup> Flood Risk Assessment and Management Programme: National Pluvial Screening Project for Ireland – Rep EX6335/2.0, HR Wallingford, November 2010

The process produced maps of areas likely to flood from intense rainfall events for three flood event probabilities (3.33%, 1% and 0.1% AEP events).

The maps were adapted to show only the extents where the flood depths were greater than 200mm (on the basis that depths lower than this would not cause significant damage given door-step levels above ground level). A peculiarity of the method also led to the modelled runoff building up where the waters would, in reality, naturally drain through the river network or to the sea, and so indicated flooded areas that intersected the river network or the sea were removed.

The above process has led to the development of indicative national pluvial flood maps. However, it should be noted that the process has assumed a constant capacity of urban storm-water drainage systems, and, due to the scale of analysis, has not taken into account local drainage structures such as culverts through embankments or other local drainage that would not be resolved in the DTM at a national scale. The maps are being reviewed and validated by the Local Authorities to take account of these limitations, before the decision on designation of AFAs is finalised.

The indicative national pluvial flood maps were included in the Draft PFRA Maps, provided in a separate volume, for the purposes of consultation on the PFRA.

#### **4.2.5. Tsunami Floods**

A report<sup>10</sup>, co-funded by the Geological Survey of Ireland, was prepared in 2006 assessing the hazard from tsunami for the UK and Irish coast. The work in preparing the report involved modelling various earthquake scenarios of the kind that generated the 1755 tsunami (see Section 3.3.2.2), and how the tsunami waves would propagate towards the Irish coast, and hence what the wave heights would be at the coast.

The report concludes that the 1755 event was an extreme event, with a recurrence period in the order of 1,000 – 10,000 years<sup>11</sup>. The model indicates that wave heights along the south coast of Ireland would be expected to be typically in the order of 1 – 2m, rising to 2.5 – 3.5m in some localised areas. These wave heights (when added to normal sea level, e.g., Mean High Water Neap or Spring tides) would result in a water level comparable to extreme sea levels that would be expected from surge events with a probability of 2% or 1% – 0.1% (depending on assumed tide and location).

Given the very low probability of such tsunami events as quoted above, it would appear that the flood levels due to tsunami would be less than those due to extreme sea levels of comparable probabilities.

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<sup>10</sup> Tsunamis – Assessing the Hazard for the UK and Irish Coasts, HR Wallingford, British Geological Survey & Proudman Oceanographic Laboratory, June 2006

<sup>11</sup> Scholz et al., 1986. Scaling differences between large interplate and intraplate earthquake, Bull. Seis. Soc. Am., Vol 76, 65-70

The flood levels at the coastline are however not the only consideration in the hazard and risk that could be caused by tsunamis. The dynamics of a tsunami could result in the flooding extending further inland than tide and surge flood events with similar levels. The models required to assess these dynamic effects are however at present not available for Ireland, and their development would be beyond the scope of the PFRA.

#### **4.2.6. Infrastructural Sources of Flooding**

##### ***4.2.6.1. Urban Storm-water Drainage Systems***

The predictive mapping of flood extents due to under-capacity of urban storm-water drainage systems (including combined sewerage systems) can be based on the indicative pluvial flood mapping, subject to local verification of drainage not modelled as part of the national pluvial screening assessment.

Floods due to blockages of drainage systems are excluded from the scope of the PFRA, as set out in Section 2.3.

##### ***4.2.6.2. Reservoirs***

It has not been possible to undertake predictive mapping of flooding due to breaches of reservoirs with any reliability in terms of extent or probability under the scope of the PFRA, as the relevant necessary information is not currently available or readily-derivable.

##### ***4.2.6.3. Water Supply Systems***

It has not been possible to undertake predictive mapping of flooding due to burst water mains with any reliability in terms of extent or probability under the scope of the PFRA, as the relevant necessary information is not currently available or readily-derivable.

#### **4.3. POTENTIAL CONSEQUENCES**

The indicative flood maps show areas prone to flooding (the 'hazard'). The other component of flood risk is the damage that can arise in the event of a flood (the 'consequences').

Flooding can cause damage to people, businesses, infrastructure and other human activities and interests, such as our cultural heritage, as well as to the environment. These different types of interests and assets (referred to as 'receptors') can suffer differing degrees of damage in the event of a flood, and with different consequences in terms of the impact or importance of the damage caused. The susceptibility of a receptor to damage, and the severity of the consequences of such damage, are described as the 'vulnerability' of the receptor. An analysis has been undertaken to assess the potential consequences of flooding to a wide range of different types of receptors, based on the likely degree of damage, and the importance of that damage.

The analysis takes into account the value or importance of the asset or service, the degree of damage or interruption to that asset or service, and the risk to life that could arise in the event of flooding.

The potential consequences have been categorised using one of five vulnerability categories, as set out below:

- Critical
- Extreme
- High
- Moderate
- Low

This analysis, which has been undertaken in consultation with relevant Government Departments and agencies, is detailed in the Technical Report on the Predictive Assessment of Potentially Significant Flood Risk<sup>12</sup>.

The vulnerabilities assigned to the range of receptors, that are the outcomes of this process, are provided in Appendix D. The vulnerabilities assigned are relevant to all sources of flooding where indicative flood maps are available.

A specific assessment has been undertaken in relation to monuments, as little international research exists on this type of flood damage. This assessment and its outcomes (i.e., vulnerabilities of different monuments) are detailed in the Technical Report<sup>13</sup>.

A specific assessment has also been undertaken in relation to the vulnerability of environmentally designated sites, as little international research exists on this type of flood damage. This assessment and its outcomes (i.e., vulnerabilities of different protected species and habitats) are detailed in the Technical Report<sup>14</sup>.

#### **4.4. INDICATIVE FLOOD RISK ANALYSIS**

##### **4.4.1. General Methodology**

The indicative flood maps delineate the areas potentially prone to flooding, and the potential damage that could be caused by the flooding has been determined by an assessment of the vulnerability classification of receptors. These two components have been integrated to determine where the flood risk might potentially be significant.

This has been achieved by the use of Geographical Information Systems (GIS) that allow different spatial data (i.e., the indicative flood maps and the receptors) to be overlain. This brings the two components of risk together, to allow the flood risk to be determined for specific areas, as indicated in Figure 4.2.

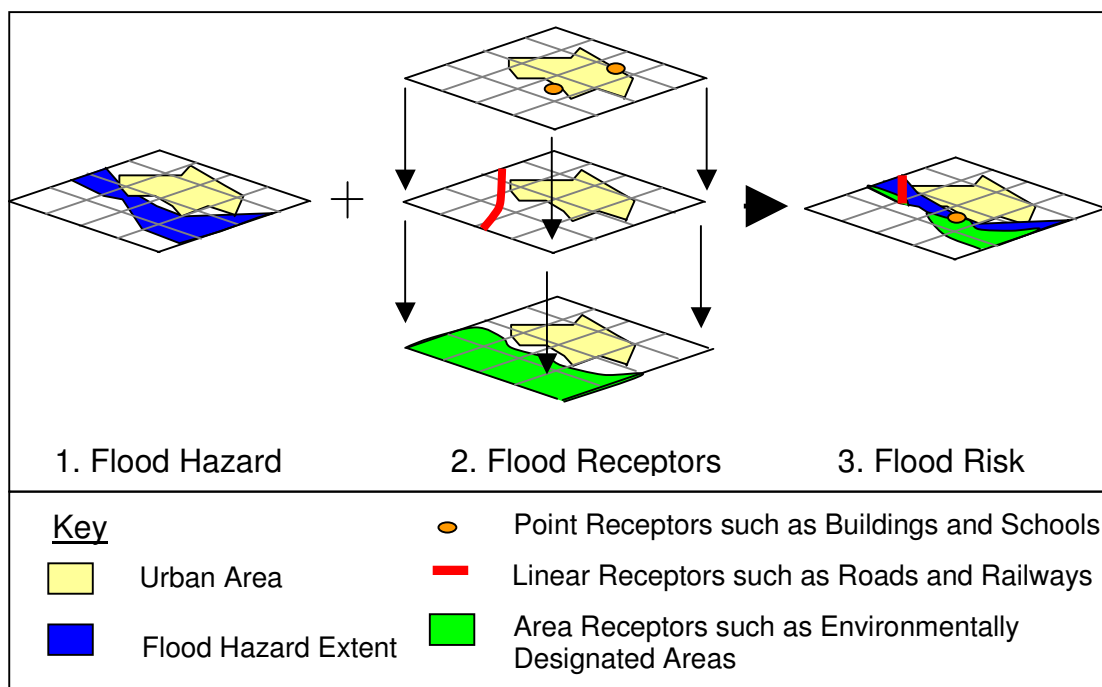
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<sup>12</sup> Preliminary Flood Risk Assessment: The Predictive Assessment of Potentially Significant Flood Risk, Mott MacDonald, 2011

<sup>13</sup> Preliminary Flood Risk Assessment, Methodology for Classifying the Vulnerability of National Monuments from flooding in the Republic of Ireland, Mott MacDonald, 2011

<sup>14</sup> Preliminary Flood Risk Assessment, Flood Vulnerability Assessment of Natura 2000 Sites, Mott MacDonald, 2011

*Figure 4.2: Integration of Hazard and Potential Consequences to Determine Risk*



#### 4.4.2. Describing Flood Risk

It is common practice to measure flood risk in economic terms (i.e., annual average damages and long-term damages measured in Euro). However, these assessments typically only evaluate flood risk to a limited range of assets, such as damage to the structure and contents of houses and other properties, for which measuring economic damages can be done readily, based on analysis of records of financial losses collected over a long period of time. These assessments do not measure the financial risk for other types of risk, such as that to people, the environment and cultural heritage, for which monetarising damages (i.e., converting into financial losses) is extremely difficult, and for which there is a relative deficit of research.

The flood risk has hence been measured in terms of the 'Flood Risk Index'. This is a metric that allows the risk to different types of asset (e.g., home, business, monument, utility asset, etc.) to be expressed numerically, but without attempting to assign monetary values to all types of damage. This allows risk to the different types of assets to be compared, and also for different mixes of risk to these different types of asset to be compared between different communities.

The Flood Risk Index is calculated based on the matrix set out in Table 4.1, integrating the probability of flooding and the vulnerability classification of the asset or activity potentially at risk. A more detailed description of the calculation of the Flood Risk Index is provided in the Technical Report (See Section 4.3, Footnote 12).

*Table 4.1: Matrix for Determining the Flood Risk Index*

| Vulnerability Class    | Vulnerability Class Factor | Probability of Flood Event (Annual Exceedance Probability) |             |            |
|------------------------|----------------------------|------------------------------------------------------------|-------------|------------|
|                        |                            | 10% - High                                                 | 1% - Medium | 0.1% - Low |
| Critical Vulnerability | 2500                       | 25000                                                      | 2500        | 250        |
| Extreme Vulnerability  | 250                        | 2500                                                       | 250         | 25         |
| High Vulnerability     | 25                         | 250                                                        | 25          | 2.5        |
| Moderate Vulnerability | 2.5                        | 25                                                         | 2.5         | 0.25       |
| Low Vulnerability      | 1                          | 10                                                         | 1           | 0.1        |

The Flood Risk Index has been calculated for each individual receptor (i.e., every house, non-residential property, monument, etc.). The Index has also been calculated for whole communities (cities, towns and villages), by adding together the Index values for each of the receptors within the community.

#### **4.4.3. Flood Risk for Point Receptors**

The receptors, locations and communities for which a Flood Risk Index of greater than 150 (greater than 50 for Groundwater flood risk, which can be of very long duration) has been determined are listed in Appendix E, categorised by indicative:

- Fluvial and Coastal flood risk (Appx E.1)
- Groundwater flood risk (Appx E.2)
- Pluvial flood risk (E.3).

#### **4.4.4. Flood Risk to the Environment**

Environmentally designated sites are spatially distributed receptors (rather than a discrete point or very small area). As such, only part of a designated site may be prone to flooding, rather than the receptor being either fully flooded or not flooded at all that is the case for point receptors. The specific location of the designated species within each of the sites is not known, and so it is not possible to state for any given site whether the relevant species or habitat are within the part of the site that is prone to flooding.

It is therefore not appropriate to assess the risk to environmentally designated sites in exactly the same manner as the point receptors. The initial risk analysis for the sites has been undertaken in broadly the same manner, calculating the initial Flood Risk Index on the basis of the derived vulnerabilities for a site (see Section 4.3) and the probability of flooding. The final Flood Risk Index for a site is however then factored by the proportion of that site prone to each probability of flooding, e.g., by 0.1 if only 10% of a site is prone to flooding for a given probability. This simple proportional factoring is required as the specific location of species within a site is generally not known.

The environmentally designated sites for which a Flood Risk Index of greater than 150 has been determined are listed in Appendix E.4.

#### **4.4.5. Flood Risk to Agriculture**

As for environmentally designated sites, agricultural land is spatially distributed, rather than a point receptor, and hence must be treated in a different manner.

The concept of amalgamating adjoining areas or grid squares of agricultural land prone to flooding to assess the flood risk for a cluster of land is not practical as most of the floodplain is used for agricultural purposes. As a result, any amalgamation of flooded agricultural land generally joins up all of the floodplain for a whole river system or length of coastline into one unit. Assessing risk under the PFRA on the basis of such a unit (i.e., the full river system or coastline floodplain) is not appropriate.

With the intention of identifying areas where there is particularly extensive agricultural land prone to flooding within a certain area, the risk was assessed on the basis of the area of agricultural land prone to flooding per unit length of river or coast-line, represented by hectares / kilometre reach.

Maps showing the outcomes of this analysis are provided in Appendix E.5.

#### **4.4.6. Flood Risk to Roads and Rail**

Roads and railways can be prone to flooding, interrupting the services these transports routes provide. The flooding, and resulting interruption, usually only lasts a few hours, although in some areas can last for days or even weeks. The flooding can, in severe events, also cause damage to the infrastructure.

The impacts of the interruptions, and susceptibility to damage, will vary locally. The impacts can extend to the isolation of properties and restriction of the movement of emergency service vehicles, such as ambulances or the delivery of emergency supplies.

The assessment of these local impacts and potential damages is beyond the scope of the PFRA. However, making use of the indicative flood maps produced through the PFRA, the impacts and potential damages can be examined locally. They can then be addressed through local measures and accounted for in flood event emergency response plans.

#### **4.4.7. Infrastructural Sources of Flooding**

##### **4.4.7.1. Urban Storm-water Drainage Systems**

As noted under Section 4.2.6.1, flood risk potentially arising due to under-capacity of urban storm-water drainage systems can be initially assessed based on the indicative pluvial flood mapping. These assessments are however indicative and represent only the *potential* risk due to this source, and should be validated by the Local Authorities in relation to any drainage not modelled as part of the national assessment, and through the public consultation process.

The locations and Flood Risk Index for areas potentially affected by this source of flooding, noting the above limitations, are set out in Appendix D.3.

#### **4.4.7.2. Reservoirs**

As it has not been possible to undertake predictive mapping of flooding due to breaches of reservoir embankment of walls with any reliability based on available or readily-derivable information, it has not been possible to undertake a predictive risk assessment following the methodology set out above.

#### **4.4.7.3. Water Supply Systems**

As it has not been possible to undertake predictive mapping of flooding due to burst water mains with any reliability based on available or readily-derivable information, it has not been possible to undertake a predictive risk assessment following the methodology set out above.

#### **4.4.7.4. ESB Infrastructure**

The PFRA Report by the ESB discusses potential future floods related to, or passing through, ESB infrastructure.

#### **4.4.7.5. Waterways Ireland Infrastructure**

The PFRA Report by Waterways Ireland discusses potential future floods related to Waterways Ireland infrastructure.

### **4.5. POTENTIAL IMPACTS OF CLIMATE CHANGE**

International and national research indicates that flooding is likely to worsen as a result of climate change. Rainfall patterns are expected to change with wetter winters and drier summers. This could increase the severity of fluvial flooding, although this is dependent on the nature of the relevant catchment and the degree of change appears to vary regionally. Sea levels are already being observed to be rising, and it is anticipated that mean sea level will continue to rise for the foreseeable future.

The information required to undertake a predictive analysis of the potential flood risk impacts of climate change is not currently available, but is under development, and once available will be used to review the PFRA outcomes.

The CFRAM Studies will undertake detailed assessments of the potential impacts of climate change on the flood risk in the AFAs, with these potential impacts being taken into account in the development of appropriate flood risk management measures.

### **4.6. USE OF PREDICTIVE HAZARD AND RISK OUTCOMES**

The outcomes of the PFRA, taking into account the predictive analysis, are outlined in Section 6.3.

## **5. CONSULTATIVE PROCESS**

Consultation with various bodies has been undertaken during the preparation of the draft PFRA, which is now being published for formal, public consultation.

### **5.1. CONSULTATION TO DATE**

The consultation to date includes two rounds of workshops (Summer 2010 and Winter 2010-2011) involving all Local Authorities. During these workshops, the Local Authorities provided information on areas known or suspected to be at risk from flooding, and reviewed provisional Areas for Further Assessment (AFAs) identified by the OPW in relation to fluvial and coastal flood risk. This information and review has fed into the identification of the probable and possible AFAs set out in Appendix E (see Section 6).

Consultation has also been held with the following organisations to inform the process and draft outcomes of the PFRA:

- Dept. of Agriculture, Fisheries and Food
- Dept. of Environment, Community and Local Government
  - *National Monuments*
  - *National Parks and Wildlife Service*
- Environmental Protection Agency
- ESB
- Geological Survey of Ireland
- Health Service Executive
- National Roads Authority
- Waterways Ireland

Discussions have also been held with utility operators in relation to the location and potential vulnerability of utility infrastructure.

### **5.2. PUBLIC CONSULTATION PROCESS**

As stated in Section 1.1.5, Ireland went beyond the requirement of the 'Floods' Directive to simply publish the PFRA, and publicly consulted on a draft of the PFRA before it was finalised. Members of the public and all interested parties and stakeholders were encouraged to review the draft PFRA and provide further information on flooding and flood risk, and / or make and submit observations or submissions on the process followed and its outcomes

It should be noted that the consultation was undertaken in parallel with site-based validation of the outcomes, which were taken into consideration alongside the outcomes of the consultation process.

Details of the outcome of the public consultation process are available from the Report on the Designation of Areas for Further Assessment, which is available on the National CFRAM Programme website. No changes to the PFRA process were deemed necessary as a result of the consultation process and submissions received.

## 6. OUTCOMES

Section 3 has outlined the historic flood risk assessment, while Section 4 has described the predictive flood risk assessment, with both being informed by the consultation process, as set out in Section 5.

The purpose of the PFRA is to identify the Areas for Further Assessment (AFAs), as set out in Article 5(1) of the 'Floods' Directive.

As described in Section 2, the PFRA was undertaken based on the three approaches noted above. This required the consideration of the potential flood risk at each location where some flood risk has been identified through *any* of the three approaches, taking into account the information derived through *all* of the three approaches, to determine whether the flood risk might (subject to further assessment) be significant.

### 6.1. THE DESIGNATION OF AFAs

As set out in Article 5(1) of the 'Floods' Directive, Member States are required to define areas where potential significant flood risks exist or might be considered likely to occur.

It is not possible based on the PFRA (a *preliminary* assessment) to determine definitively where significant flood risks exist, but it is rather the objective to determine where, based on a preliminary assessment only, where it is considered that such risk might *potentially* exist. It is for these areas where the State will then invest resources, through the CFRAM Programme, to more accurately assess the risk, and then assess what measures might be appropriate to manage and reduce the risk.

This requires a definition as to what 'significant' risk is. Given the preliminary, and hence uncertain, nature of the PFRA, it would be inappropriate to define highly prescriptive, or 'black and white', rules for significance based on any one of the approaches taken. It is rather necessary to consider in combination the outcomes of all approaches.

#### 6.1.1. Guiding Principles for Designation of AFAs

Notwithstanding the need to avoid prescriptive rules for the designation of AFAs, it is useful for consistency and transparency to set guiding principles for this consideration. Subject therefore to the presence or otherwise of supporting or contradictory information arising from one of the other approaches, areas have been designated as probable AFAs (see below) if:

- The historic flood risk assessment indicates that a location has a historic hazard or risk category of 4 (see Section 3)
- The predictive flood risk assessment indicates that a location has a community Flood Risk Index in excess of 250, or where an individual receptor has an Index in excess of 250 and is deemed to be of strategic, national importance or be critical in the event of a major regional emergency (such as a power station, international airport or hospital)

- Information has been provided through consultation that clearly indicates that an area is subject to severe flood risk that is beyond the capacity or responsibility of the Local Authority or other responsible body to manage locally.

It is reiterated that the above are not definitive rules, but rather principles. The potential designation of an area based on any one approach / principle is also being subject to evaluation through the other approaches for a given location, and if the other approaches support or contradict the potential designation.

#### **6.1.2. Probable and Possible AFAs**

The PFRA initially defined probable and possible AFAs. This reflects the preliminary nature of the PFRA, and the need to take into account the outcomes of the consultation. All of these provisional AFAs were also subject to validation during site-visits that are ongoing in parallel with the public consultation process. At the time of the consultation and validation processes, it was foreseen that:

- Probable AFAs were intended to be designated as AFAs, and hence subject to further assessment through the CFRAM Studies, unless information arose to indicate that this should not be the case
- Possible AFAs would not be designated as AFAs, unless information arose to indicate that this should not be the case. These were areas where the degree of risk, based on the PFRA work done to date, did not indicate that area should be designated as an AFA, but where there is some degree of risk and where sites visits and consultation were required to validate the risk

It is also important to note that if an area has not been designated as an AFA, then that area is not excluded from any further action to address flood risk, and works to reduce or manage the flood risk could still be considered through channels other than the CFRAM Programme.

### **6.2. NATURAL SOURCES OF FLOODING**

The provisional AFAs, both probable and possible, related to flooding from rivers, sea-water and groundwater, based on consideration of the outcomes of all approaches, as set out in the Sections above, are listed in Appendix F.

#### **6.2.1. Flood Risk to the Environment**

While a number of environmentally designated sites have a Flood Risk Index score of greater than 250 (see Section 6.1.1), it is not necessarily appropriate to designate any or all of these areas as AFAs.

For example, some of the sites have been deemed to be at risk due to the effect that a flood event could have on an aquatic species. An example would be sites with Pearl Mussel, which would be vulnerable to high levels of siltation or scouring that could be caused by a flood. It would be neither possible nor appropriate to prevent flood events in the river itself, as to do so would require strict, artificial controls on the hydrological regime of a river, such as through the

construction of a dam and flooding of large areas. This in turn would be likely to cause significant detrimental effects elsewhere and / or be contrary to other environmental objectives (e.g., those of the Water Framework Directive).

Similarly, some of the sites may be vulnerable due to flood-sensitive habitats on the floodplain. Again, it may not be appropriate to prevent large reaches of a floodplain from flooding, other than in exceptional circumstances. To do so could cause significant detrimental effects for other species in the area, and / or be contrary to other environmental objectives (e.g., hydro-morphology under the Water Framework Directive). It may well also exacerbate flood risk elsewhere.

Finally, flooding is a natural process. Habitats and species will generally adapt to the prevalent hydrological regime as part of that natural process, and hence intervention may not be appropriate.

As such, it was deemed more appropriate to ensure that the environmental vulnerabilities and risk identified through the PFRA are taken fully into account during the consideration and development of flood risk management options (e.g., through the Strategic Environmental Assessment or Appropriate assessment under the Habitats Directive) under the CFRAM Programme. This would ensure that any flood risk management measures adopted take account of these risks, and do not exacerbate the risk to these sites or the vulnerable species therein.

### **6.2.2. Flood Risk to Agriculture**

The PFRA has identified where there is a concentrated flood risk to agricultural land is concentrated (see Appendix E.5). The designation of AFAs for agricultural risk has been based on the areas where this concentration is greatest, taking into account relevant submissions made during the PFRA consultation process.

### **6.2.3. Flood Risk from Tsunamis**

There is historical evidence of tsunami affecting the coast of Ireland, and predictive assessments have shown that tsunami waves caused by Atlantic seabed earthquakes could affect the Irish coast. However, the probability of tsunami affecting Ireland is very low, and the flood levels of these very rare floods would generally be less at the coast (or in some locations, about the same) than predictive coastal floods caused by more frequent surge events. The assessment of flood risk from surge-related coastal floods in coastal AFAs, and the consideration of measures to manage such floods, is therefore likely to also assess and address, to some degree if not completely, the potential effects of tsunami. AFAs were therefore not specifically designated on the basis of the risk from tsunami.

The impact on flood extent and risk due to the dynamics of tsunami compared to tide and surge events is however not known or derivable at this stage. Further analysis of this risk is required with particular emphasis on localised areas that could be particularly vulnerable to such floods due to local bathymetric, topographical and hydraulic conditions, and on the specific hydro-dynamic effects of tsunami waves.

#### **6.2.4. Areas Benefiting from Flood Relief Schemes**

Some areas that have been subject to serious flooding in the past now enjoy some protection from flooding through flood relief schemes built by the OPW or Local Authorities.

While the flood risk to these communities has been substantially reduced, there remains a residual risk from particularly extreme events that could overwhelm the defences. In addition, the monitoring and maintenance of these schemes should form part of the Flood Risk Management Plan developed through the CFRAM Studies.

As a result, and notwithstanding the reduction in risk due to the flood relief schemes, communities where formal flood relief schemes have been implemented have been designated as AFAs.

### **6.3. INFRASTRUCTURAL SOURCES OF FLOODING**

The decision on the designation of AFAs due to flood risk related to infrastructure is a matter for the owners of the infrastructure, i.e., the Local Authorities, ESB and Waterways Ireland.

The views and submissions made through the consultation process on the draft PFRA informed the decisions on the designation of AFAs.

#### **6.3.1. Urban Storm-Water Drainage Systems**

Areas at risk due to flooding from under-capacity of urban storm-water drainage systems have been identified in Appendices C.4 and E.3.

#### **6.3.2. Reservoirs**

As described herein, it has not been possible to undertake a predictive risk assessment due to breaches of reservoir embankments or walls with any reliability based on available or readily-derivable information, and so no AFAs have been designated on this basis.

The Local Authorities have reported no breaches of reservoirs embankments or walls, or past significant flood events due to the breach or collapse of reservoirs. Taking the absence of past reservoir failures, and the number and average age of reservoirs in Ireland (many hundreds of reservoirs nationally, with an estimated average age of over 30 years), it may be deduced that the likelihood of flooding due to a reservoir breach is very low. Given that likelihood is an integral component of risk, it can be reasonably assumed therefore at this stage that risk associated with the breach of reservoirs is low, i.e., not significant.

As such, no probable or possible AFAs were designated on the basis of risk from reservoirs. The risk from reservoirs should however be assessed in further detail to redress the current absence of information.

### **6.3.3. Water Supply System**

Flood events due to burst water mains have occurred in the past. The locations where such flood events have been reported by the Local Authorities as having caused notable damage, or those recorded through the historic flood risk assessment, are listed in Appendix C.4.

As described herein, it has not been possible to undertake a predictive risk assessment due to burst water mains with any reliability based on available or readily-derivable information.

### **6.3.4. ESB**

ESB have undertaken the PFRA with respect to the infrastructure that they own, operate and maintain and that could give rise to flood risk, e.g., dams and embankments retaining water. The process and outcomes of this work is detailed in the PFRA Report by ESB.

The conclusion of the work by ESB is that the relevant infrastructure does not give rise to significant flood risk. Reasoning and details of this conclusion can be found in the aforementioned report.

### **6.3.5. Waterways Ireland**

Waterways Ireland have undertaken the PFRA with respect to the infrastructure that they own, operate and maintain and that could give rise to flood risk, e.g., embanked sections of canal. The process and outcomes of this work is detailed in the PRFA Report by Waterways Ireland.

The conclusion of the work by Waterways Ireland is that the relevant infrastructure does not give rise to significant flood risk. Reasoning and details of this conclusion can be found in the aforementioned report.

## **6.4. CROSS-BORDER COORDINATION**

The 'Floods' Directive [Article 4(3) and Article 5(2)] requires that Member States which share a cross-border river basin exchange information when undertaking the PFRA, and coordinate the identification of AFAs.

The OPW has a long-standing working relationship with the Rivers Agency, an executive agency within the Northern Ireland Department of Agriculture and Rural Development, who are the Competent Authority for implementation of the 'Floods' Directive in the North. Since 2008 there has been a number of meetings and the exchange of information at both a technical and high level specifically related to the EU 'Floods' Directive to ensure that there is full coordination as appropriate.

The methods used for undertaking the PFRA in both jurisdictions are similar, but have some differences due to different data formats and availability and different legacy work and context. The thresholds for defining significance are however broadly comparable.

There are a number of probable or possible AFAs in cross-border river basins and in the border counties. However, the only probable AFA where there could be direct cross-border effects and where particular cross-border coordination is required is Lifford, Co. Donegal, that sits across the River Foyle from Strabane, Co. Tyrone in the North.

## **7. FINAL DESIGNATION OF AFAS**

The process and outcomes of the draft PFRA are set out in the preceding sections and appendices of this report. This includes the identification of probable and possible Areas for Further Assessment (AFAs) related to natural sources of flooding.

Other EU Member States have used similar approaches to the process used in Ireland for undertaking the PFRA.

The draft PFRA was subject to public consultation that was undertaken over the Summer of 2011. Submissions on the PFRA were made either to the OPW or the relevant Local Authorities.

The views and information provided through the consultation process were reviewed and, along with outcomes of the on-site inspections (see Section 5.2) and any other information arising, taken into account in the final designation of the AFAs.

The definition of AFAs based on flood risk related to infrastructure owned by Local Authorities is a matter for the Local Authorities to decide upon. The ESB and Waterways Ireland have undertaken PFRA assessments with respect to their own infrastructure and have concluded that there is not a significant risk.

Details of the outcome of the public consultation process, and the final list of areas designated as AFAs, are available from the Report on the Designation of Areas for Further Assessment, which is available on the National CFRAM Programme website. No changes to the PFRA process set out herein were deemed necessary as a result of the consultation process and submissions received.

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## **APPENDIX A**

### **ARTICLES 4 AND 5 OF THE EU 'FLOODS' DIRECTIVE**

#### **CHAPTER II: PRELIMINARY FLOOD RISK ASSESSMENT**

##### ***Article 4***

1. Member States shall, for each river basin district, or unit of management referred to in Article 3(2)(b), or the portion of an international river basin district lying within their territory, undertake a preliminary flood risk assessment in accordance with paragraph 2 of this Article.

2. Based on available or readily derivable information, such as records and studies on long term developments, in particular impacts of climate change on the occurrence of floods, a preliminary flood risk assessment shall be undertaken to provide an assessment of potential risks. The assessment shall include at least the following:

(a) maps of the river basin district at the appropriate scale including the borders of the river basins, sub-basins and, where existing, coastal areas, showing topography and land use;

(b) a description of the floods which have occurred in the past and which had significant adverse impacts on human health, the environment, cultural heritage and economic activity and for which the likelihood of similar future events is still relevant, including their flood extent and conveyance routes and an assessment of the adverse impacts they have entailed;

(c) a description of the significant floods which have occurred in the past, where significant adverse consequences of similar future events might be envisaged;

and, depending on the specific needs of Member States, it shall include:

(d) an assessment of the potential adverse consequences of future floods for human health, the environment, cultural heritage and economic activity, taking into account as far as possible issues such as the topography, the position of watercourses and their general hydrological and geomorphological characteristics, including floodplains as natural retention areas, the effectiveness of existing manmade flood defence infrastructures, the position of populated areas, areas of economic activity and long-term developments including impacts of climate change on the occurrence of floods.

3. In the case of international river basin districts, or units of management referred to in Article 3(2)(b) which are shared with other Member States, Member States shall ensure that exchange of relevant information takes place between the competent authorities concerned.

4. Member States shall complete the preliminary flood risk assessment by 22 December 2011.

## **Article 5**

1. On the basis of a preliminary flood risk assessment as referred to in Article 4, Member States shall, for each river basin district, or unit of management referred to in Article 3(2)(b), or portion of an international river basin district lying within their territory, identify those areas for which they conclude that potential significant flood risks exist or might be considered likely to occur.
2. The identification under paragraph 1 of areas belonging to an international river basin district, or to a unit of management referred to in Article 3(2)(b) shared with another Member State, shall be coordinated between the Member States concerned.

## **APPENDIX B**

### **TECHNICAL PFRA REPORTS**

The Technical PFRA Reports available from the National CFRAM Programme website ([www.cfram.ie](http://www.cfram.ie)) are listed below.

#### **PREDICTIVE FLOOD RISK ASSESSMENT**

The following report further details the predictive assessment method undertaken for the natural sources of flooding, and for sites potentially prone to flooding due to under-capacity of storm-water drainage systems.

*Preliminary Flood Risk Assessment, The Predictive Assessment of Potentially Significant Flood Risk, Mott MacDonald, 2011*

#### **PREDICTIVE FLOOD MAPPING**

The following reports describe the development of indicative, predicted flood extent information for a range of sources of flooding.

##### ***Flooding from Rivers (Fluvial)***

*Preliminary Flood Risk Assessment, Fluvial Flood Hazard Mapping – Normal Depth Method, Compass Informatics, 2011*

##### ***Coastal or Tidal Flooding***

*Irish Coastal Protection Strategy Study, Phase 2 - South East Coast, Work Packages 2, 3 & 4A - Technical Report - IBE0104, RPS, June 2010*

*Irish Coastal Protection Strategy Study, Phase 3a - North East Coast, Work Packages 2, 3 & 4A - Technical Report - IBE0071, RPS, June 2010*

*Irish Coastal Protection Strategy Study, Phase 3b - South Coast, Work Packages 2, 3 & 4A - Technical Report – IBE0071, RPS, May 2011*

Note: Reports for the remainder of the coast are currently under preparation

##### ***Groundwater Flooding***

*Preliminary Flood Risk Assessment, Groundwater Flooding, Mott MacDonald, 2010*

##### ***Pluvial flooding***

*Flood Risk Assessment and Management Programme: National Pluvial Screening Project for Ireland – Rep EX6335/2.0, HR Wallingford, November 2010*

## **VULNERABILITY ASSESSMENTS**

The following reports describe the assessment of the vulnerability to damage from floods for particular receptors.

### ***National Monuments***

*Preliminary Flood Risk Assessment, Methodology for Classifying the Vulnerability of National Monuments from Flooding in The Republic of Ireland, Mott MacDonald, 2011*

### ***Environmentally Designated Sites (SACs, SPAs)***

*Preliminary Flood Risk Assessment, Flood Vulnerability Assessment of Natura 2000 Sites, Mott MacDonald and Bird Watch Ireland, 2011*

## **INFRASTRUCTURE-RELATED FLOODING**

The following reports describe the PFRA undertaken by the ESB and Waterways Ireland with respect to risk that could arise from infrastructure they manage:

### ***ESB***

*Preliminary Flood Risk Assessment Report, ESB, 2011*

### ***Waterways Ireland***

*Preliminary Flood Risk Assessment Report, Waterways Ireland, 2011*

## APPENDIX C

### HISTORIC FLOOD RISK ASSESSMENT

#### C.1 RECORDS OF NUMBER OF PAST FLOOD EVENTS PER LOCATION

The determination of the Historic Hazard Category is defined in Section 3.3.2 of the main body of the report. The locations with a Historic Hazard Category of 2 or above are listed below.

| County | Name Of Location                | No. of Past Floods | Historic Hazard Category |
|--------|---------------------------------|--------------------|--------------------------|
| Carlow | Carlow & Env                    | 16                 | 4                        |
| Carlow | Tullow                          | 6                  | 3                        |
| Carlow | Ballygowan                      | 3                  | 2                        |
| Carlow | Leighlinbridge                  | 3                  | 2                        |
| Cavan  | Cavan & Environs                | 8                  | 2                        |
| Cavan  | Derreskit                       | 2                  | 2                        |
| Clare  | Ennis & Env                     | 13                 | 4                        |
| Clare  | O' Briensbridge                 | 5                  | 3                        |
| Clare  | Bellisle                        | 4                  | 2                        |
| Clare  | Cloonlara                       | 3                  | 2                        |
| Clare  | Inishlosky                      | 3                  | 2                        |
| Clare  | Strawickeen                     | 3                  | 2                        |
| Clare  | Summerhill                      | 3                  | 2                        |
| Clare  | Ballycar (New-Market-On-Fergus) | 3                  | 2                        |
| Clare  | Clooncarhy                      | 3                  | 2                        |
| Clare  | Knockalisheen                   | 3                  | 2                        |
| Clare  | Sixmilebridge                   | 3                  | 2                        |
| Clare  | Cappavilla North                | 2                  | 2                        |
| Clare  | Cappavilla South                | 2                  | 2                        |
| Clare  | Ardataggle                      | 2                  | 2                        |
| Clare  | Ardcloony                       | 2                  | 2                        |
| Clare  | Doonass Demesne                 | 2                  | 2                        |
| Clare  | Drummeen                        | 2                  | 2                        |
| Clare  | Errina                          | 2                  | 2                        |
| Clare  | Illaunyregan                    | 2                  | 2                        |
| Clare  | Kildoorus                       | 2                  | 2                        |
| Clare  | O'Briens Bridge                 | 2                  | 2                        |
| Clare  | Rineroe                         | 2                  | 2                        |
| Clare  | Springfield                     | 2                  | 2                        |
| Clare  | Athlunkard                      | 2                  | 2                        |
| Clare  | Cragleagh                       | 2                  | 2                        |
| Clare  | Drumcaran More                  | 2                  | 2                        |
| Clare  | Garraun                         | 2                  | 2                        |
| Clare  | Gilloge                         | 2                  | 2                        |
| Clare  | Kilbreckan                      | 2                  | 2                        |
| Clare  | Shanvogh                        | 2                  | 2                        |
| Clare  | Skehanagh                       | 2                  | 2                        |
| Cork   | Cork City And Suburbs           | 71                 | 4                        |
| Cork   | Mallow & Env                    | 15                 | 4                        |
| Cork   | Fermoy & Env                    | 11                 | 4                        |
| Cork   | Skibbereen                      | 11                 | 4                        |
| Cork   | Dunmanway North                 | 9                  | 3                        |
| Cork   | Bantry                          | 6                  | 3                        |
| Cork   | Ballygarvan                     | 5                  | 3                        |

|         |                               |     |   |
|---------|-------------------------------|-----|---|
| Cork    | Carrigaline                   | 5   | 3 |
| Cork    | Bandon & Env                  | 12  | 2 |
| Cork    | Killavullen                   | 6   | 2 |
| Cork    | Clonakilty & Env              | 6   | 2 |
| Cork    | Kinsale & Env                 | 6   | 2 |
| Cork    | Blarney                       | 4   | 2 |
| Cork    | Kanturk                       | 4   | 2 |
| Cork    | Kilnaglery                    | 4   | 2 |
| Cork    | Tower                         | 4   | 2 |
| Cork    | Abbeystowry                   | 4   | 2 |
| Cork    | Carrigfadda                   | 4   | 2 |
| Cork    | Coolnagarrane                 | 4   | 2 |
| Cork    | Curragh                       | 4   | 2 |
| Cork    | Gortnaclohy                   | 4   | 2 |
| Cork    | Lurriga                       | 4   | 2 |
| Cork    | Marsh                         | 4   | 2 |
| Cork    | Carrigaline West              | 3   | 2 |
| Cork    | Firville West                 | 3   | 2 |
| Cork    | Crosshaven                    | 3   | 2 |
| Cork    | Passage West & Env            | 3   | 2 |
| Cork    | Shanacloon                    | 3   | 2 |
| Cork    | Youghal & Env                 | 3   | 2 |
| Cork    | Ballydaniel More              | 2   | 2 |
| Cork    | Ballygarvan                   | 2   | 2 |
| Cork    | Ballyderown                   | 2   | 2 |
| Cork    | Banteer                       | 2   | 2 |
| Cork    | Coolroe More                  | 2   | 2 |
| Cork    | Knockeennagearagh             | 2   | 2 |
| Cork    | Milstreet                     | 2   | 2 |
| Cork    | Ashgrove                      | 2   | 2 |
| Cork    | Killumney, Cork               | 2   | 2 |
| Cork    | Macroom & Env                 | 2   | 2 |
| Cork    | Rearour And Barrettshill      | 2   | 2 |
| Cork    | Ardcahan                      | 2   | 2 |
| Cork    | Nedinagh West                 | 2   | 2 |
| Donegal | Letterkenny & Environs        | 14  | 3 |
| Donegal | Newtown Cunningham            | 6   | 2 |
| Donegal | Ballybofey - Stranorlar       | 5   | 2 |
| Donegal | Ballyhanna                    | 2   | 2 |
| Dublin  | Dublin City and Suburbs       | 224 | 4 |
| Dublin  | Swords                        | 10  | 3 |
| Dublin  | Rush                          | 6   | 2 |
| Dublin  | Skerries                      | 5   | 2 |
| Dublin  | Naul                          | 4   | 2 |
| Dublin  | Cooldrinagh                   | 4   | 2 |
| Dublin  | Malahide                      | 4   | 2 |
| Dublin  | Newcastle                     | 4   | 2 |
| Dublin  | Donabate                      | 3   | 2 |
| Dublin  | Burrow {Ed Howth}             | 3   | 2 |
| Dublin  | Kinsaley                      | 3   | 2 |
| Dublin  | Portmarnock                   | 3   | 2 |
| Dublin  | Turnapin Great                | 3   | 2 |
| Dublin  | Balbriggan & Environs         | 2   | 2 |
| Dublin  | Killossery                    | 2   | 2 |
| Galway  | Ballinasloe & Env             | 11  | 3 |
| Galway  | Baile Chlair                  | 7   | 3 |
| Galway  | Galway City And Suburbs       | 7   | 2 |
| Galway  | Lackan (Dunkellin By)         | 6   | 2 |
| Galway  | Tiernevin                     | 6   | 2 |
| Galway  | Balrobbuck Beg                | 5   | 2 |
| Galway  | Ballylee (Kiltartan By)       | 4   | 2 |
| Galway  | Curraghmore (Ed Clare Galway) | 4   | 2 |

|        |                              |   |   |
|--------|------------------------------|---|---|
| Galway | Caherpeak West               | 4 | 2 |
| Galway | Coole Demesne                | 4 | 2 |
| Galway | Gort                         | 4 | 2 |
| Galway | Killomorán                   | 4 | 2 |
| Galway | Newhall                      | 4 | 2 |
| Galway | Peterswell                   | 4 | 2 |
| Galway | Pollacurra                   | 4 | 2 |
| Galway | Shanvally (Kiltartan By)     | 4 | 2 |
| Galway | Skehanagh (Kiltartan By)     | 4 | 2 |
| Galway | Turloughnacloghdoo Commons   | 4 | 2 |
| Galway | Clonfert (Butson)            | 3 | 2 |
| Galway | Lismanny                     | 3 | 2 |
| Galway | Ballymore (Ed Craughwell)    | 3 | 2 |
| Galway | Cahermore                    | 3 | 2 |
| Galway | Clogharevaun                 | 3 | 2 |
| Galway | Crannagh (Ed Kiltartan)      | 3 | 2 |
| Galway | Doonowen                     | 3 | 2 |
| Galway | Garryland                    | 3 | 2 |
| Galway | Killarriv                    | 3 | 2 |
| Galway | Newtown (Ed Beagh)           | 3 | 2 |
| Galway | Raheen Demesne               | 3 | 2 |
| Galway | Shantallow (Ed Ardahan)      | 3 | 2 |
| Galway | Carta                        | 2 | 2 |
| Galway | Clonfert Demesne             | 2 | 2 |
| Galway | Clonfert North (Seymour)     | 2 | 2 |
| Galway | Costello's Island            | 2 | 2 |
| Galway | Craghalan Little             | 2 | 2 |
| Galway | Abbey (Leitrim By)           | 2 | 2 |
| Galway | Bishops Islands              | 2 | 2 |
| Galway | Bishops Islands (Part Of)    | 2 | 2 |
| Galway | Esker (Longford By)          | 2 | 2 |
| Galway | Inchinaskeagh                | 2 | 2 |
| Galway | Inishee                      | 2 | 2 |
| Galway | Lehinch (Longford By)        | 2 | 2 |
| Galway | Reask (Longford By)          | 2 | 2 |
| Galway | Annaghcorrib                 | 2 | 2 |
| Galway | Garryduff (Longford By)      | 2 | 2 |
| Galway | Kylemore (Longford By)       | 2 | 2 |
| Galway | Aggard More                  | 2 | 2 |
| Galway | Ballinroaun (Loughrea By)    | 2 | 2 |
| Galway | Ballyaneen North             | 2 | 2 |
| Galway | Ballybackagh (Loughrea By)   | 2 | 2 |
| Galway | Ballyboy (Dunkellin By)      | 2 | 2 |
| Galway | Ballybuck North              | 2 | 2 |
| Galway | Ballykilladea                | 2 | 2 |
| Galway | Ballylahy                    | 2 | 2 |
| Galway | Ballynabucky (Kiltartan By)  | 2 | 2 |
| Galway | Ballynamantan                | 2 | 2 |
| Galway | Ballynastaig (Kiltartan By)  | 2 | 2 |
| Galway | Blackrock                    | 2 | 2 |
| Galway | Bullaunagh (Kiltartan By)    | 2 | 2 |
| Galway | Bullaunagh (Loughrea By)     | 2 | 2 |
| Galway | Caherglassaun                | 2 | 2 |
| Galway | Carrowbaun East              | 2 | 2 |
| Galway | Carrowbaun West              | 2 | 2 |
| Galway | Carrownavohanaun             | 2 | 2 |
| Galway | Castleboy                    | 2 | 2 |
| Galway | Castlequarter (Kiltartan By) | 2 | 2 |
| Galway | Castletown (Kiltartan By)    | 2 | 2 |
| Galway | Cloghroak                    | 2 | 2 |
| Galway | Cloonanearla                 | 2 | 2 |
| Galway | Corker                       | 2 | 2 |

|          |                         |    |   |
|----------|-------------------------|----|---|
| Galway   | Crannagh (Ed Cahermore) | 2  | 2 |
| Galway   | Dromorehill             | 2  | 2 |
| Galway   | Garracloon South        | 2  | 2 |
| Galway   | Glenbrack               | 2  | 2 |
| Galway   | Gortaloman              | 2  | 2 |
| Galway   | Gortard (Loughrea By)   | 2  | 2 |
| Galway   | Grannagh (Loughrea By)  | 2  | 2 |
| Galway   | Killinny East           | 2  | 2 |
| Galway   | Knockaunatouk           | 2  | 2 |
| Galway   | Lecknabegga             | 2  | 2 |
| Galway   | Limepark North          | 2  | 2 |
| Galway   | Limepark South          | 2  | 2 |
| Galway   | Lisheenacrannagh        | 2  | 2 |
| Galway   | Lissadulta              | 2  | 2 |
| Galway   | Loughaunawadda          | 2  | 2 |
| Galway   | Newtown (Ed Kiltartan)  | 2  | 2 |
| Galway   | Newtown (Regun)         | 2  | 2 |
| Galway   | Rahaly                  | 2  | 2 |
| Galway   | Rathbaun (Dunkellin By) | 2  | 2 |
| Galway   | Rathcosgry              | 2  | 2 |
| Galway   | Rinneen (Ed Kiltartan)  | 2  | 2 |
| Galway   | Shigaunagh              | 2  | 2 |
| Kerry    | Tralee & Env            | 13 | 3 |
| Kerry    | Kenmare                 | 6  | 2 |
| Kerry    | Ballymalis              | 4  | 2 |
| Kerry    | Curreal                 | 3  | 2 |
| Kerry    | Lixnaw                  | 3  | 2 |
| Kerry    | Killarney & Env         | 2  | 2 |
| Kerry    | Ballyouneen             | 2  | 2 |
| Kerry    | Tullamore(Ed Shronowen) | 2  | 2 |
| Kildare  | Leixlip                 | 12 | 4 |
| Kildare  | Celbridge               | 5  | 3 |
| Kildare  | Athy & Env              | 9  | 2 |
| Kildare  | Commons Upper           | 6  | 2 |
| Kildare  | Kishawanny Lower        | 5  | 2 |
| Kildare  | Newbridge & Env         | 5  | 2 |
| Kildare  | Maynooth                | 4  | 2 |
| Kildare  | Straffan                | 4  | 2 |
| Kildare  | Commons(Salt South By)  | 3  | 2 |
| Kildare  | Johnstown               | 3  | 2 |
| Kildare  | Treadstown              | 3  | 2 |
| Kildare  | Turnings Lower          | 3  | 2 |
| Kildare  | Turnings Upper          | 3  | 2 |
| Kildare  | Balyoulster, Kildare    | 2  | 2 |
| Kildare  | Confey                  | 2  | 2 |
| Kildare  | Kill                    | 2  | 2 |
| Kildare  | Killadoon               | 2  | 2 |
| Kildare  | Laraghbryan East        | 2  | 2 |
| Kildare  | Wheatfield Upper        | 2  | 2 |
| Kildare  | Ballitore               | 2  | 2 |
| Kilkenny | Kilkenny & Env          | 47 | 4 |
| Kilkenny | Graiguenamanagh         | 6  | 2 |
| Kilkenny | Callan                  | 5  | 2 |
| Kilkenny | Inistioge               | 5  | 2 |
| Kilkenny | Thomastown              | 5  | 2 |
| Kilkenny | Piltown                 | 4  | 2 |
| Laois    | Portlaoise & Env        | 12 | 3 |
| Laois    | Portarlinton            | 10 | 2 |
| Laois    | Mountrath               | 3  | 2 |
| Leitrim  | Carrick-On-Shannon      | 3  | 2 |
| Leitrim  | Dromod                  | 3  | 2 |
| Leitrim  | Clooncumber             | 2  | 2 |

|          |                                        |    |   |
|----------|----------------------------------------|----|---|
| Leitrim  | Cloonfeacle                            | 2  | 2 |
| Leitrim  | Cloonmorris                            | 2  | 2 |
| Leitrim  | Adereen                                | 2  | 2 |
| Leitrim  | Annaduff                               | 2  | 2 |
| Leitrim  | Attirory                               | 2  | 2 |
| Leitrim  | Ballynacleigh                          | 2  | 2 |
| Leitrim  | Caldragh                               | 2  | 2 |
| Leitrim  | Coraughrim                             | 2  | 2 |
| Leitrim  | Cornacorroo                            | 2  | 2 |
| Leitrim  | Corryolus                              | 2  | 2 |
| Leitrim  | Deffier                                | 2  | 2 |
| Leitrim  | Derrintonny                            | 2  | 2 |
| Leitrim  | Derrybrack                             | 2  | 2 |
| Leitrim  | Derryoughter                           | 2  | 2 |
| Leitrim  | Doora                                  | 2  | 2 |
| Leitrim  | Drumgeaglom                            | 2  | 2 |
| Leitrim  | Drumhierny                             | 2  | 2 |
| Leitrim  | Drumleague                             | 2  | 2 |
| Leitrim  | Drumod More                            | 2  | 2 |
| Leitrim  | Drumsna                                | 2  | 2 |
| Leitrim  | Gort                                   | 2  | 2 |
| Leitrim  | Gortinee                               | 2  | 2 |
| Leitrim  | Hartley                                | 2  | 2 |
| Leitrim  | Jamestown                              | 2  | 2 |
| Leitrim  | Knockadrinan                           | 2  | 2 |
| Leitrim  | Leitrim                                | 2  | 2 |
| Leitrim  | Mullagh (Mohill By)                    | 2  | 2 |
| Leitrim  | Pollnagappul                           | 2  | 2 |
| Leitrim  | Portaneoght                            | 2  | 2 |
| Leitrim  | Rinnacurreen                           | 2  | 2 |
| Leitrim  | Townparks                              | 2  | 2 |
| Leitrim  | Aghavore                               | 2  | 2 |
| Limerick | Limerick City And Suburbs              | 73 | 4 |
| Limerick | Castleconnell                          | 7  | 3 |
| Limerick | Cappamore                              | 8  | 2 |
| Limerick | Foynes                                 | 5  | 2 |
| Limerick | Rathkeale                              | 5  | 2 |
| Limerick | Ballyvollane                           | 5  | 2 |
| Limerick | Ballygrennan (Ed Limerick North Rural) | 5  | 2 |
| Limerick | Lacka (Ed Castleconnell)               | 4  | 2 |
| Limerick | Castletroy                             | 4  | 2 |
| Limerick | Athea                                  | 3  | 2 |
| Limerick | Balliniska                             | 3  | 2 |
| Limerick | Creggane                               | 3  | 2 |
| Limerick | Ballysimon                             | 3  | 2 |
| Limerick | Fairyhall                              | 3  | 2 |
| Limerick | Garryglass                             | 3  | 2 |
| Limerick | Knockanbaun                            | 3  | 2 |
| Limerick | Montpelier                             | 3  | 2 |
| Limerick | Portcrusha                             | 3  | 2 |
| Limerick | Prospect (Ed Ballyvarra)               | 3  | 2 |
| Limerick | Rivers                                 | 3  | 2 |
| Limerick | Towlerton                              | 3  | 2 |
| Limerick | Clonconane                             | 3  | 2 |
| Limerick | Coolbane                               | 2  | 2 |
| Limerick | Hermitage                              | 2  | 2 |
| Limerick | Kilbane                                | 2  | 2 |
| Limerick | Newgarden North                        | 2  | 2 |
| Limerick | Part Of Singland                       | 2  | 2 |
| Limerick | Reboge Meadows                         | 2  | 2 |
| Limerick | Stradbally North                       | 2  | 2 |
| Longford | Longford_ & Env                        | 9  | 2 |

|          |                            |    |   |
|----------|----------------------------|----|---|
| Longford | Knappoge (Longford By)     | 4  | 2 |
| Longford | Aghakeel                   | 3  | 2 |
| Longford | Annaghcooleen              | 3  | 2 |
| Longford | Ballynahinch               | 3  | 2 |
| Longford | Commons South              | 3  | 2 |
| Longford | Rathcline                  | 3  | 2 |
| Longford | Saints Island              | 3  | 2 |
| Longford | Cloonageeher               | 2  | 2 |
| Longford | Cloonart North             | 2  | 2 |
| Longford | Cloonart South             | 2  | 2 |
| Longford | Cloonbearla                | 2  | 2 |
| Longford | Cloonbony                  | 2  | 2 |
| Longford | Cloondara                  | 2  | 2 |
| Longford | Clooneen(Cox)              | 2  | 2 |
| Longford | Clooniher                  | 2  | 2 |
| Longford | Cloonkeel                  | 2  | 2 |
| Longford | Aghamore (Rathcline By)    | 2  | 2 |
| Longford | Agharanagh (Rathcline By)  | 2  | 2 |
| Longford | Annagh (Rathcline By)      | 2  | 2 |
| Longford | Ballykenny                 | 2  | 2 |
| Longford | Ballyminion                | 2  | 2 |
| Longford | Bleanavoher                | 2  | 2 |
| Longford | Brianstown                 | 2  | 2 |
| Longford | Cashel                     | 2  | 2 |
| Longford | Castleforbes Demesne       | 2  | 2 |
| Longford | Claras                     | 2  | 2 |
| Longford | Cleraun                    | 2  | 2 |
| Longford | Collum                     | 2  | 2 |
| Longford | Commons North              | 2  | 2 |
| Longford | Corrool (Fox)              | 2  | 2 |
| Longford | Corrool (Kenny)            | 2  | 2 |
| Longford | Cullentragh                | 2  | 2 |
| Longford | Curreen                    | 2  | 2 |
| Longford | Derrycolumb                | 2  | 2 |
| Longford | Derrymacar                 | 2  | 2 |
| Longford | Derrynabuntale             | 2  | 2 |
| Longford | Derrynagalliagh            | 2  | 2 |
| Longford | Drumnee                    | 2  | 2 |
| Longford | Edera                      | 2  | 2 |
| Longford | Forthill                   | 2  | 2 |
| Longford | Glebe (Longford By)        | 2  | 2 |
| Longford | Killeen (Longford By)      | 2  | 2 |
| Longford | Kilnacarrow (Rathcline By) | 2  | 2 |
| Longford | Lanesborough               | 2  | 2 |
| Longford | Lismagawley Meadow         | 2  | 2 |
| Longford | Lissagernal                | 2  | 2 |
| Longford | Pollagh                    | 2  | 2 |
| Longford | Portanure                  | 2  | 2 |
| Louth    | Drogheda & Env             | 25 | 4 |
| Louth    | Dundalk & Environs         | 21 | 3 |
| Louth    | Corbollis                  | 4  | 2 |
| Louth    | Baltray                    | 4  | 2 |
| Louth    | Carlingford                | 3  | 2 |
| Louth    | Townparks                  | 3  | 2 |
| Mayo     | Ballina & Environs         | 6  | 2 |
| Mayo     | Gortanierin                | 3  | 2 |
| Mayo     | Bellagelly South           | 3  | 2 |
| Meath    | Commons                    | 10 | 4 |
| Meath    | Navan & Environs           | 12 | 3 |
| Meath    | Trim & Environs.           | 12 | 3 |
| Meath    | Layt Bett Mor              | 11 | 3 |
| Meath    | Balreask Old               | 5  | 2 |

|          |                                       |    |   |
|----------|---------------------------------------|----|---|
| Meath    | Nobber                                | 3  | 2 |
| Meath    | Castlefarm                            | 3  | 2 |
| Meath    | Rathregan                             | 3  | 2 |
| Meath    | Drumcondra                            | 2  | 2 |
| Meath    | Ashfield Or Screeboge                 | 2  | 2 |
| Meath    | Ballinter                             | 2  | 2 |
| Meath    | Derrinydaly                           | 2  | 2 |
| Meath    | Dowdstown                             | 2  | 2 |
| Meath    | Dunmoe                                | 2  | 2 |
| Meath    | Ferganstown And Ballymacon            | 2  | 2 |
| Meath    | Harlinstown                           | 2  | 2 |
| Meath    | Leshemstown                           | 2  | 2 |
| Meath    | Slane                                 | 2  | 2 |
| Meath    | Ashbourne                             | 2  | 2 |
| Meath    | Clonee Village                        | 2  | 2 |
| Meath    | Dunboyne                              | 2  | 2 |
| Monaghan | Annaghkilly                           | 10 | 4 |
| Monaghan | Monaghan & Environs                   | 4  | 2 |
| Monaghan | Bellanode                             | 2  | 2 |
| Offaly   | Tullamore & Env                       | 8  | 2 |
| Offaly   | Banagher                              | 4  | 2 |
| Offaly   | Shannonbridge                         | 4  | 2 |
| Offaly   | Bracknagh                             | 3  | 2 |
| Offaly   | Drumcaw Or Mountlucas                 | 3  | 2 |
| Offaly   | Cloniffeen                            | 3  | 2 |
| Offaly   | Clonony Beg                           | 3  | 2 |
| Offaly   | Curraghavarna And Portavolla          | 3  | 2 |
| Offaly   | Banragh Island                        | 3  | 2 |
| Offaly   | Derryholmes Or Timolin And Derryharan | 3  | 2 |
| Offaly   | Kilmeelchon                           | 3  | 2 |
| Offaly   | Moystown Demesne                      | 3  | 2 |
| Offaly   | Cloncraft Or Bloomhill                | 3  | 2 |
| Offaly   | Creevagh                              | 3  | 2 |
| Offaly   | Bullock Island                        | 2  | 2 |
| Offaly   | Caplevane                             | 2  | 2 |
| Offaly   | Carrowmanagh                          | 2  | 2 |
| Offaly   | Charlestown                           | 2  | 2 |
| Offaly   | Clonmacnoise                          | 2  | 2 |
| Offaly   | Cogran                                | 2  | 2 |
| Offaly   | Curraghlahan                          | 2  | 2 |
| Offaly   | Cushcallow Or Cloncallow              | 2  | 2 |
| Offaly   | Ash Island                            | 2  | 2 |
| Offaly   | Ballymacoolaghan                      | 2  | 2 |
| Offaly   | Birds Island                          | 2  | 2 |
| Offaly   | Gallaghers Island                     | 2  | 2 |
| Offaly   | Garrymore                             | 2  | 2 |
| Offaly   | Grants Island                         | 2  | 2 |
| Offaly   | Haughton's Island                     | 2  | 2 |
| Offaly   | Kilcormac                             | 2  | 2 |
| Offaly   | Killaphort                            | 2  | 2 |
| Offaly   | Kylebeg Or Banagher                   | 2  | 2 |
| Offaly   | Lecarrow Glebe Or Britannia           | 2  | 2 |
| Offaly   | Lisclooney                            | 2  | 2 |
| Offaly   | Macnahanny Or Ashgrove                | 2  | 2 |
| Offaly   | Macoghlan's Island                    | 2  | 2 |
| Offaly   | Minus Island                          | 2  | 2 |
| Offaly   | Mullaghakaraun                        | 2  | 2 |
| Offaly   | Park (Garrycastle By)                 | 2  | 2 |
| Offaly   | Clonascra                             | 2  | 2 |
| Offaly   | Cloniff                               | 2  | 2 |
| Offaly   | Clorhane                              | 2  | 2 |
| Offaly   | Raghra                                | 2  | 2 |

|           |                                      |   |   |
|-----------|--------------------------------------|---|---|
| Roscommon | Boyle & Environs                     | 6 | 2 |
| Roscommon | Raghrabeg                            | 5 | 2 |
| Roscommon | Cloonown                             | 5 | 2 |
| Roscommon | Cloonburren                          | 4 | 2 |
| Roscommon | Bogganfin                            | 4 | 2 |
| Roscommon | Crannagh                             | 4 | 2 |
| Roscommon | Drumlosh                             | 4 | 2 |
| Roscommon | Cloonbeggaun                         | 3 | 2 |
| Roscommon | Clooncah                             | 3 | 2 |
| Roscommon | Clooneigh                            | 3 | 2 |
| Roscommon | Cloonfad Beg                         | 3 | 2 |
| Roscommon | Cloongownagh                         | 3 | 2 |
| Roscommon | Clooniff                             | 3 | 2 |
| Roscommon | Cloonlarge                           | 3 | 2 |
| Roscommon | Cloonmore                            | 3 | 2 |
| Roscommon | Annaghmore                           | 3 | 2 |
| Roscommon | Ballycummin                          | 3 | 2 |
| Roscommon | Ballyleague                          | 3 | 2 |
| Roscommon | Ballytoohey                          | 3 | 2 |
| Roscommon | Callowbeg                            | 3 | 2 |
| Roscommon | Carnagh East                         | 3 | 2 |
| Roscommon | Carrickynaghtan and Garrynagawna Bog | 3 | 2 |
| Roscommon | Cleaheen                             | 3 | 2 |
| Roscommon | Cloonown                             | 3 | 2 |
| Roscommon | Cloonteem                            | 3 | 2 |
| Roscommon | Corgowan                             | 3 | 2 |
| Roscommon | Cornaseer                            | 3 | 2 |
| Roscommon | Curraghnaboll                        | 3 | 2 |
| Roscommon | Derrineel                            | 3 | 2 |
| Roscommon | Drinagh                              | 3 | 2 |
| Roscommon | Gubbarudda                           | 3 | 2 |
| Roscommon | Kilnamanagh                          | 3 | 2 |
| Roscommon | Lavagh                               | 3 | 2 |
| Roscommon | Roosky                               | 3 | 2 |
| Roscommon | Roosky                               | 3 | 2 |
| Roscommon | Tumna                                | 3 | 2 |
| Roscommon | Woodbrook                            | 3 | 2 |
| Roscommon | Cloonacarrow                         | 2 | 2 |
| Roscommon | Cloonaddra                           | 2 | 2 |
| Roscommon | Cloonaufill                          | 2 | 2 |
| Roscommon | Cloonaverry                          | 2 | 2 |
| Roscommon | Clooncommon More                     | 2 | 2 |
| Roscommon | Clooneen (Blakeny)                   | 2 | 2 |
| Roscommon | Clooneigh                            | 2 | 2 |
| Roscommon | Clooneskert                          | 2 | 2 |
| Roscommon | Cloonfad                             | 2 | 2 |
| Roscommon | Cloonfad                             | 2 | 2 |
| Roscommon | Cloonfad More                        | 2 | 2 |
| Roscommon | Cloonglasny Beg                      | 2 | 2 |
| Roscommon | Cloonmaan                            | 2 | 2 |
| Roscommon | Cloonmore                            | 2 | 2 |
| Roscommon | Cloonmustra                          | 2 | 2 |
| Roscommon | Aghafin                              | 2 | 2 |
| Roscommon | Annagh                               | 2 | 2 |
| Roscommon | Annaghbeg                            | 2 | 2 |
| Roscommon | Annaghmona                           | 2 | 2 |
| Roscommon | Ardanafrin                           | 2 | 2 |
| Roscommon | Ballagh                              | 2 | 2 |
| Roscommon | Ballyclare                           | 2 | 2 |
| Roscommon | Ballyglass                           | 2 | 2 |
| Roscommon | Ballymagrine                         | 2 | 2 |
| Roscommon | Ballymartin                          | 2 | 2 |

|           |                           |   |   |
|-----------|---------------------------|---|---|
| Roscommon | Barry Beg                 | 2 | 2 |
| Roscommon | Barry More                | 2 | 2 |
| Roscommon | Bellaugh                  | 2 | 2 |
| Roscommon | Brackloon                 | 2 | 2 |
| Roscommon | Bunnaribba                | 2 | 2 |
| Roscommon | Cappaleitrim              | 2 | 2 |
| Roscommon | Carrickynaghtan           | 2 | 2 |
| Roscommon | Carrigeen                 | 2 | 2 |
| Roscommon | Carrigeen                 | 2 | 2 |
| Roscommon | Carrowmurragh             | 2 | 2 |
| Roscommon | Carrownamaddy             | 2 | 2 |
| Roscommon | Carrowndrisha             | 2 | 2 |
| Roscommon | Carrownure Lower          | 2 | 2 |
| Roscommon | Carrownure Upper          | 2 | 2 |
| Roscommon | Carrowphadeen             | 2 | 2 |
| Roscommon | Cartron (Ed Danesfort)    | 2 | 2 |
| Roscommon | Cartron (Hartland)        | 2 | 2 |
| Roscommon | Cartron (King)            | 2 | 2 |
| Roscommon | Charlestown               | 2 | 2 |
| Roscommon | Cloonshannagh (Ed Bumlin) | 2 | 2 |
| Roscommon | Cloonskeeveen             | 2 | 2 |
| Roscommon | Cloontuskert              | 2 | 2 |
| Roscommon | Cooltona                  | 2 | 2 |
| Roscommon | Coolumber                 | 2 | 2 |
| Roscommon | Cordrehid                 | 2 | 2 |
| Roscommon | Corgullion                | 2 | 2 |
| Roscommon | Corkeenagh                | 2 | 2 |
| Roscommon | Corraun                   | 2 | 2 |
| Roscommon | Correen                   | 2 | 2 |
| Roscommon | Correenbeg                | 2 | 2 |
| Roscommon | Corry                     | 2 | 2 |
| Roscommon | Cortober                  | 2 | 2 |
| Roscommon | Crannagh More             | 2 | 2 |
| Roscommon | Creggan                   | 2 | 2 |
| Roscommon | Creggan                   | 2 | 2 |
| Roscommon | Cregganabeaka             | 2 | 2 |
| Roscommon | Cruit                     | 2 | 2 |
| Roscommon | Cuilbalkeen               | 2 | 2 |
| Roscommon | Cuilkeel                  | 2 | 2 |
| Roscommon | Cuillard                  | 2 | 2 |
| Roscommon | Cultyconeen               | 2 | 2 |
| Roscommon | Cultyconway               | 2 | 2 |
| Roscommon | Cultyshinnoge             | 2 | 2 |
| Roscommon | Culliaghy                 | 2 | 2 |
| Roscommon | Danesfort                 | 2 | 2 |
| Roscommon | Davis's Island            | 2 | 2 |
| Roscommon | Dergraw                   | 2 | 2 |
| Roscommon | Derreenannagh             | 2 | 2 |
| Roscommon | Derrycashel               | 2 | 2 |
| Roscommon | Usna                      | 2 | 2 |
| Roscommon | Warren                    | 2 | 2 |
| Roscommon | Derryfeacle               | 2 | 2 |
| Roscommon | Derryhanee                | 2 | 2 |
| Roscommon | Derrymacstur              | 2 | 2 |
| Roscommon | Derrynadooey              | 2 | 2 |
| Roscommon | Derryonogh                | 2 | 2 |
| Roscommon | Doovoge                   | 2 | 2 |
| Roscommon | Drishoge                  | 2 | 2 |
| Roscommon | Drumagissaun              | 2 | 2 |
| Roscommon | Drumboylan                | 2 | 2 |
| Roscommon | Drumcleavry               | 2 | 2 |
| Roscommon | Drumharlow                | 2 | 2 |

|           |                         |   |   |
|-----------|-------------------------|---|---|
| Roscommon | Drumman More            | 2 | 2 |
| Roscommon | Drummod                 | 2 | 2 |
| Roscommon | Erra                    | 2 | 2 |
| Roscommon | Fearagh                 | 2 | 2 |
| Roscommon | Foxhill                 | 2 | 2 |
| Roscommon | Galey                   | 2 | 2 |
| Roscommon | Gallagh                 | 2 | 2 |
| Roscommon | Gardentown              | 2 | 2 |
| Roscommon | Garrymona Island        | 2 | 2 |
| Roscommon | Garrynagawna            | 2 | 2 |
| Roscommon | Gillstown               | 2 | 2 |
| Roscommon | Glen                    | 2 | 2 |
| Roscommon | Grange (Ed Ballygarden) | 2 | 2 |
| Roscommon | Hughestown              | 2 | 2 |
| Roscommon | Inchinallee             | 2 | 2 |
| Roscommon | Kilbarry                | 2 | 2 |
| Roscommon | Kilgarve                | 2 | 2 |
| Roscommon | Kilmacarril             | 2 | 2 |
| Roscommon | Kilmore (Ed Lecarrow)   | 2 | 2 |
| Roscommon | Kilnacloghy             | 2 | 2 |
| Roscommon | Knockanyconor           | 2 | 2 |
| Roscommon | Knockhall               | 2 | 2 |
| Roscommon | Lack                    | 2 | 2 |
| Roscommon | Lackagh                 | 2 | 2 |
| Roscommon | Lackan (Ed Kiltteevan)  | 2 | 2 |
| Roscommon | Lecarrow                | 2 | 2 |
| Roscommon | Long Island             | 2 | 2 |
| Roscommon | Longnamuck              | 2 | 2 |
| Roscommon | Lurga                   | 2 | 2 |
| Roscommon | Lustia                  | 2 | 2 |
| Roscommon | Meelick (Ed Kilmore)    | 2 | 2 |
| Roscommon | Milltown                | 2 | 2 |
| Roscommon | Moneenbog               | 2 | 2 |
| Roscommon | Moneyduff               | 2 | 2 |
| Roscommon | Mountallen              | 2 | 2 |
| Roscommon | Mountplunket            | 2 | 2 |
| Roscommon | Moyglass (Ed Cloonteen) | 2 | 2 |
| Roscommon | Moyvannan               | 2 | 2 |
| Roscommon | Muckanagh               | 2 | 2 |
| Roscommon | Part Of Cuilbalkeen     | 2 | 2 |
| Roscommon | Part Of Cuillard        | 2 | 2 |
| Roscommon | Portnahinch             | 2 | 2 |
| Roscommon | Powellshill             | 2 | 2 |
| Roscommon | Rattinagh               | 2 | 2 |
| Roscommon | Rinanny                 | 2 | 2 |
| Roscommon | Rinnagan                | 2 | 2 |
| Roscommon | Rooaun                  | 2 | 2 |
| Roscommon | Roosky New              | 2 | 2 |
| Roscommon | Rushport                | 2 | 2 |
| Roscommon | Shanballymore           | 2 | 2 |
| Roscommon | Skeagh                  | 2 | 2 |
| Roscommon | Srabragan               | 2 | 2 |
| Roscommon | Tawnagh More            | 2 | 2 |
| Roscommon | Tobberataravan          | 2 | 2 |
| Roscommon | Toberpatrick            | 2 | 2 |
| Roscommon | Tooloscan               | 2 | 2 |
| Roscommon | Trean                   | 2 | 2 |
| Roscommon | Tulrush                 | 2 | 2 |
| Sligo     | Sligo & Env             | 8 | 2 |
| Sligo     | Killaraght              | 6 | 2 |
| Sligo     | Bunduff                 | 5 | 2 |
| Sligo     | Quarryfield             | 5 | 2 |

|           |                                |    |   |
|-----------|--------------------------------|----|---|
| Sligo     | Kilbrattan                     | 4  | 2 |
| Sligo     | Tawnymucklagh                  | 2  | 2 |
| Sligo     | Bunнанilra                     | 2  | 2 |
| Tipperary | Clonmel_ & Env                 | 18 | 4 |
| Tipperary | Birdhill                       | 5  | 3 |
| Tipperary | Carrick-On-Suir                | 6  | 2 |
| Tipperary | Nenagh_ & Env                  | 6  | 2 |
| Tipperary | Skeheenaranky                  | 5  | 2 |
| Tipperary | Templemore_ & Env              | 4  | 2 |
| Tipperary | Lehinch                        | 4  | 2 |
| Tipperary | Redwood                        | 4  | 2 |
| Tipperary | Ardfinnan                      | 3  | 2 |
| Tipperary | Burgagery-Lands West           | 3  | 2 |
| Tipperary | Clogheen                       | 3  | 2 |
| Tipperary | Fethard                        | 3  | 2 |
| Tipperary | Marlfield                      | 3  | 2 |
| Tipperary | Toberaheena                    | 3  | 2 |
| Tipperary | Inishlounaght                  | 2  | 2 |
| Tipperary | Toor More                      | 2  | 2 |
| Tipperary | Ballyquirk                     | 2  | 2 |
| Waterford | Waterford City and Suburbs     | 14 | 3 |
| Waterford | Dungarvan_ & Env               | 14 | 3 |
| Waterford | Tramore_ & Env                 | 6  | 2 |
| Waterford | Garrison                       | 4  | 2 |
| Waterford | Coolfinn                       | 3  | 2 |
| Waterford | Greenan                        | 3  | 2 |
| Waterford | Poulnagunoge                   | 3  | 2 |
| Waterford | Dunmore_East                   | 3  | 2 |
| Waterford | Passage East                   | 3  | 2 |
| Waterford | Templeyvrick                   | 3  | 2 |
| Waterford | Ballyrafter                    | 3  | 2 |
| Waterford | Mocollop                       | 3  | 2 |
| Waterford | Ballindysert                   | 2  | 2 |
| Waterford | Clashanahy                     | 2  | 2 |
| Westmeath | Athlone_ & Environs            | 29 | 4 |
| Westmeath | Mullingar_ & Env               | 9  | 2 |
| Westmeath | Kilgarvan Glebe                | 3  | 2 |
| Westmeath | Cloonbonny                     | 2  | 2 |
| Westmeath | Ballaghkeeran Big              | 2  | 2 |
| Westmeath | Ballaghkeeran Little           | 2  | 2 |
| Westmeath | Ballinlough (Kilkenny West By) | 2  | 2 |
| Westmeath | Ballygowlan                    | 2  | 2 |
| Westmeath | Ballynacliffy                  | 2  | 2 |
| Westmeath | Ballynahownwood                | 2  | 2 |
| Westmeath | Bellaugh                       | 2  | 2 |
| Westmeath | Bethlehem                      | 2  | 2 |
| Westmeath | Bleanphuttoge                  | 2  | 2 |
| Westmeath | Bogganfin                      | 2  | 2 |
| Westmeath | Bunown                         | 2  | 2 |
| Westmeath | Canal And Banks                | 2  | 2 |
| Westmeath | Cappankelly                    | 2  | 2 |
| Westmeath | Carrickobreen                  | 2  | 2 |
| Westmeath | Cartron (Kilkenny West By)     | 2  | 2 |
| Westmeath | Clonbonny                      | 2  | 2 |
| Westmeath | Creaghduff                     | 2  | 2 |
| Westmeath | Creaghduff South               | 2  | 2 |
| Westmeath | Creggan                        | 2  | 2 |
| Westmeath | Whinning                       | 2  | 2 |
| Westmeath | Doovoge                        | 2  | 2 |
| Westmeath | Friars Island                  | 2  | 2 |
| Westmeath | Garrynafela                    | 2  | 2 |
| Westmeath | Glassan                        | 2  | 2 |

|           |                      |    |   |
|-----------|----------------------|----|---|
| Westmeath | Golden Island        | 2  | 2 |
| Westmeath | Hillquarter          | 2  | 2 |
| Westmeath | Killeenmore          | 2  | 2 |
| Westmeath | Killinure North      | 2  | 2 |
| Westmeath | Killinure South      | 2  | 2 |
| Westmeath | Kippinstown          | 2  | 2 |
| Westmeath | Meehan               | 2  | 2 |
| Westmeath | Muckanagh            | 2  | 2 |
| Westmeath | Portaneena           | 2  | 2 |
| Westmeath | Portlick             | 2  | 2 |
| Westmeath | Ross                 | 2  | 2 |
| Westmeath | Srameen              | 2  | 2 |
| Westmeath | Tonagh               | 2  | 2 |
| Westmeath | Tullin               | 2  | 2 |
| Wexford   | Enniscorthy & Env    | 9  | 3 |
| Wexford   | New Ross & Env       | 8  | 2 |
| Wexford   | Coolnahorna          | 3  | 2 |
| Wexford   | Edermine             | 3  | 2 |
| Wexford   | Newtown              | 3  | 2 |
| Wexford   | Banoge               | 2  | 2 |
| Wexford   | Rossard              | 2  | 2 |
| Wexford   | Townparks            | 2  | 2 |
| Wexford   | Wexford & Env        | 2  | 2 |
| Wexford   | Arthurstown, Wexford | 2  | 2 |
| Wicklow   | Arklow               | 18 | 4 |
| Wicklow   | Bray & Environs      | 6  | 3 |
| Wicklow   | Greystones & Env     | 6  | 2 |
| Wicklow   | Threecastles         | 3  | 2 |
| Wicklow   | Ballinastoe          | 3  | 2 |

## C.2. RECORDS OF FINANCIAL DAMAGE FOR PAST FLOODS

| County    | Location                                                 | Flood Event Date                             | Financial Damage Reported (€) <sup>1</sup>                  |
|-----------|----------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------|
| Carlow    | Tullow                                                   | November 2002, November 2000 & November 1965 | €7.6 million over a 50 year period                          |
| Cork      | Cork City                                                | 6 <sup>th</sup> January 1996                 | €2,284,000                                                  |
| Cork      | Clonakilty                                               | 16 <sup>th</sup> December 1989               | €635,000                                                    |
| Cork      | Mallow                                                   | 1 <sup>st</sup> November 1980                | €3,173,000                                                  |
| Cork      | Kanturk                                                  | 1 <sup>st</sup> November 1980                | €467,000                                                    |
| Cork      | Skibbereen, Bantry, Ballymakeera, Ballyvourney & Macroom | 5 <sup>th</sup> August 1986                  | €2,538,000                                                  |
| Dublin    | River Dodder, Camac, Tolka & Poddle                      | 25/26 <sup>th</sup> August 1986              | €7,614,000                                                  |
| Galway    | Maam                                                     | September 1998                               | €63,000                                                     |
|           | Sixmilebridge                                            | 27 <sup>th</sup> January 1995                | > €1,269,000                                                |
| Kerry     | Garries                                                  | 1 <sup>st</sup> November 1980                | €162,00                                                     |
| Kerry     | River Flesk                                              | 5 <sup>th</sup> August 1986                  | €99,000                                                     |
| Kilkenny  | Kilkenny City                                            | 25 <sup>th</sup> January 1995                | 70 buildings – Damage of between €380 – €3,172 per property |
| Limerick  | Limerick City                                            | 25 <sup>th</sup> December 1999               | €308,00                                                     |
| Tipperary | Clonmel                                                  | 4 <sup>th</sup> January 1996                 | €774,000                                                    |
| Tipperary | Clonmel                                                  | 5 <sup>th</sup> November 2000                | €859,000                                                    |
| Tipperary | Cahir                                                    | 5 <sup>th</sup> November 2000                | €290,000                                                    |
| Tipperary | Cashel                                                   | 5 <sup>th</sup> November 2000                | €133,000                                                    |
| Tipperary | Fethard                                                  | 5 <sup>th</sup> November 2000                | €690,000                                                    |
| Tipperary | Tipperary                                                | 5 <sup>th</sup> November 2000                | €473,000                                                    |
| Waterford | Waterford City                                           | 27 <sup>th</sup> October 2004                | €12,000 – Only includes cost to City Council                |

Note 1: Damages quoted in Punts have been converted to Euro and rounded to the nearest thousand euro

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### C.3 RECORDS OF NUMBER OF PROPERTIES FLOODED DURING PAST FLOODS

| County | Flood Name - Location                            | Start Date | No. of Properties Flooded |
|--------|--------------------------------------------------|------------|---------------------------|
| Carlow | Slaney Tullow Nov 1965                           | 01/11/1965 | 60                        |
| Carlow | Barrow Carlow November 2000                      | 05/11/2000 | 43                        |
| Carlow | Slaney Tullow Nov 2000                           | 05/11/2000 | 35                        |
| Carlow | Barrow Carlow 19th to 26th Nov 2009              | 19/11/2009 | 11                        |
| Carlow | Barrow Leighlinbridge Nov 2000                   | 05/11/2000 | 10                        |
| Carlow | Derry Clonegall Bridge recurring                 |            | 5                         |
| Carlow | Derry Clonegall Nov 2000                         | 05/11/2000 | 4                         |
| Carlow | Newtown Co Carlow Nov 2000                       | 05/11/2000 | 2                         |
| Carlow | Slaney Rathvilly Nov 2000                        | 05/11/2000 | 2                         |
| Carlow | Ballon recurring                                 |            | 1                         |
| Clare  | Ennis, Nov 2009                                  | 19/11/2009 | 112                       |
| Clare  | Fergus Ennis December 1959                       | 27/12/1959 | 100                       |
| Clare  | Shannon Banks, Co Clare, Nov 2009                | 10/11/2009 | 20                        |
| Clare  | Owenogarney Sixmilebridge Jan 1995               | 27/01/1995 | 14                        |
| Clare  | Springfield (Cloodara), Co. Clare, Nov 2009      | 19/11/2009 | 10                        |
| Clare  | Doolin, Co. Clare, Nov 2009                      | 19/11/2009 | 8                         |
| Clare  | Toonagh County Clare Dec 1999                    | 24/12/1999 | 4                         |
| Clare  | Kilkee Recurring                                 |            | 4                         |
| Clare  | Shannon Quinspool, Parteen Clare Dec 1999        | 24/12/1999 | 3                         |
| Clare  | Clonbony Stream Milltown Malbay Jan 2005         | 07/01/2005 | 3                         |
| Clare  | Ballyvaughan, Co Clare, Nov 2009                 | 19/11/2009 | 2                         |
| Clare  | Shannon Carrigerry Clare Recurring               |            | 2                         |
| Clare  | South Galway March 1994 Termon                   | 01/01/1994 | 2                         |
| Clare  | Fergus Ennis, Feb 2002                           | 04/02/2002 | 2                         |
| Clare  | Ranaghan, Co Clare Nov 2009                      | 19/11/2009 | 1                         |
| Clare  | Kilnaboy, Co Clare Nov 2009                      | 19/11/2009 | 1                         |
| Clare  | Poulataggle, Co Clare Nov 2009                   | 19/11/2009 | 1                         |
| Clare  | Deelin Beg, Caron, Co Clare Nov 2009             | 19/11/2009 | 1                         |
| Clare  | Fahee, Carron, Co Clare, Nov 2009                | 19/11/2009 | 1                         |
| Clare  | Corofin, Co Clare Nov 2009                       | 19/11/2009 | 1                         |
| Clare  | Gilloge, Co Clare Nov 2009                       | 19/11/2009 | 1                         |
| Clare  | Owenogarney Bunratty Castle Jan 1995             | 16/01/1995 | 1                         |
| Clare  | River Rine at Creevagh Br Dangan L7204 Recurring |            | 1                         |
| Cork   | Cork City Nov 2009                               | 19/11/2009 | 764                       |
| Cork   | Bandon River, Bandon, Nov 2009                   | 19/11/2009 | 200                       |
| Cork   | River Ilen, Skibbereen, Nov 2009                 | 19/11/2009 | 176                       |
| Cork   | Dalua Kanturk Nov 1980                           | 31/10/1980 | 178                       |
| Cork   | Fermoy, Nov 2009                                 | 19/11/2009 | 38                        |
| Cork   | Bandon Dunmanway October 1996                    | 13/10/1996 | 25                        |
| Cork   | River Feagle, Clonakilty, Nov 2009               | 19/11/2009 | 20                        |
| Cork   | Flooding at Ballingeary, Co. Cork 19 Nov 2009    | 19/11/2009 | 21                        |
| Cork   | Palmbury Estate Flooding, Togher, recurring      |            | 8                         |
| Cork   | Sullane Ballymakeery December 2006               | 07/12/2006 | 5                         |
| Cork   | Gurteenroe Macroom 10 January 2008               | 10/01/2008 | 4                         |
| Cork   | Myross Cork Recurring                            |            | 3                         |
| Cork   | Leap Ahnancagh Cross Road Cork Recurring         |            | 3                         |
| Cork   | Milltown River Castlefreke August 1997           | 26/08/1997 | 2                         |
| Cork   | Milltown Castlefreke Rathbarry Recurring         |            | 2                         |
| Cork   | Castlefreke Kilkeran Recurring                   |            | 2                         |
| Cork   | Water Rock Midleton, Cork Recurring              |            | 1                         |
| Cork   | Glanworth, Mitchelstown, Cork recurring          |            | 1                         |
| Cork   | Tragumna Recurring                               |            | 1                         |
| Cork   | Ring Clonakilty Recurring                        |            | 1                         |
| Cork   | Inchydoney Island - North Recurring              |            | 1                         |
| Cork   | Ballydaniel Beg Oct 2004                         | 27/10/2004 | 1                         |

|         |                                                 |            |     |
|---------|-------------------------------------------------|------------|-----|
| Cork    | Ashgrove Oct 2004                               | 27/10/2004 | 1   |
| Cork    | Ashgrove Ballyellane Oct 2004                   | 27/10/2004 | 1   |
| Cork    | White Point Cobh Oct 2004                       | 27/10/2004 | 1   |
| Cork    | Dunisky near Macroon Nov 2000                   | 05/11/2000 | 1   |
| Cork    | Rathcormack Co.Cork 30/01/2009                  | 30/01/2009 | 1   |
| Cork    | Dreenagh,Skibbereen Co.Cork, Dec 2009           | 31/12/2009 | 1   |
| Donegal | Eaney Inver Recurring                           |            | 1   |
| Donegal | Mullaghderg, Donegal Recurring                  |            | 1   |
| Dublin  | Dodder August 1986                              | 25/08/1986 | 340 |
| Dublin  | Dublin City Tidal Feb 2002                      | 01/02/2002 | 120 |
| Dublin  | Griffeen November 2000                          | 05/11/2000 | 107 |
| Dublin  | Poddle August 1986                              | 25/08/1986 | 85  |
| Dublin  | Tolka Richmond Road Drumcondra Nov 2000         | 05/11/2000 | 62  |
| Dublin  | Tolka September 1931                            | 03/09/1931 | 54  |
| Dublin  | Camac August 1986                               | 25/08/1986 | 30  |
| Dublin  | Wad River Santry Jan 1965                       | 20/01/1965 | 20  |
| Dublin  | Camac Cherrywood Nov 1982                       | 05/11/1982 | 18  |
| Dublin  | Dodder Woodview Cottages Rathfarnham Nov 2000   | 05/11/2000 | 15  |
| Dublin  | Vernon Avenue Clontarf Road Aug 2004            | 23/08/2004 | 15  |
| Dublin  | Dodder Avonmore Park Nov 2000                   | 05/11/2000 | 12  |
| Dublin  | Tolka Botanic Ave area August 1986              | 25/08/1986 | 10  |
| Dublin  | Holmpatrick Skerries Recurring                  |            | 10  |
| Dublin  | Tolka Richmond Road August 1986                 | 25/08/1986 | 10  |
| Dublin  | Seapark Drive Seafield Road Aug 2004            | 23/08/2004 | 7   |
| Dublin  | Beech Row Ronanstown Recurring                  |            | 6   |
| Dublin  | Little Dargle Dec 1956                          | 25/12/1956 | 4   |
| Dublin  | Hearst Road Donabate Nov 2002                   | 14/11/2002 | 4   |
| Dublin  | Skerries South Beach Holmpatrick Feb 2002       | 01/02/2002 | 4   |
| Dublin  | Dodder Kiltipper Road Nov 2000                  | 05/11/2000 | 4   |
| Dublin  | Owenadoher Edmondstown Road. Nov 2000           | 05/11/2000 | 3   |
| Dublin  | Ward North Street Swords Nov 2002               | 13/11/2002 | 3   |
| Dublin  | Crescent South Shore Rd Rogerstown Feb 2002     | 01/02/2002 | 3   |
| Dublin  | Shinkeen Hazelhatch River Road Nov 2000         | 05/11/2000 | 3   |
| Dublin  | Kinsealy Lane Area Oct 2002                     | 20/10/2002 | 2   |
| Dublin  | The Burrow Portrane Feb 2002                    | 01/02/2002 | 2   |
| Dublin  | Torquay Road Foxrock Nov 1982                   | 05/11/1982 | 2   |
| Dublin  | Kilternan Glencullen Road Nov 1982              | 05/11/1982 | 2   |
| Dublin  | Clontarf Rd Seaview Avenue August 2004          | 23/08/2004 | 2   |
| Dublin  | Newcastle village Nov 2000                      | 05/11/2000 | 2   |
| Dublin  | Knocklyon Ave Nov 2000                          | 05/11/2000 | 2   |
| Dublin  | Vernon Avenue Kincora Road Aug 2004             | 23/08/2004 | 2   |
| Dublin  | Santry Nov 2002                                 | 12/11/2002 | 1   |
| Dublin  | Dodder Dartry Cottages Nov 2000                 | 05/11/2000 | 1   |
| Dublin  | Mayne Balgriffin Park June 1993                 | 11/06/1993 | 1   |
| Dublin  | Dodder Lower Dodder Road Recurring              |            | 1   |
| Dublin  | Bloody Stream Howth Near Dart Station Recurring |            | 1   |
| Dublin  | Pinnock Hill October 2002                       | 20/10/2002 | 1   |
| Dublin  | Ballyboughal on Naul Road Nov 2002              | 13/11/2002 | 1   |
| Dublin  | Ballymadrough Donabate Recurring                |            | 1   |
| Dublin  | The Square Naul Village Undated                 |            | 1   |
| Dublin  | Streamstown to Malahide Road Dublin Undated     |            | 1   |
| Dublin  | Strand Rd Sutton Feb 2002                       | 01/02/2002 | 1   |
| Dublin  | Greenfield Road Sutton Feb 2002                 | 01/02/2002 | 1   |
| Dublin  | Strand Road Malahide Feb 2002                   | 01/02/2002 | 1   |
| Dublin  | Sydney Avenue Oct 2002                          | 29/10/2002 | 1   |
| Dublin  | Poddle River Whitehall Road June 1993           | 11/06/1993 | 1   |
| Dublin  | Deansgrange Johnstown Pottery Road Nov 1982     | 05/11/1982 | 1   |
| Dublin  | Osprey Estate Nov 1982                          | 05/11/1982 | 1   |
| Dublin  | Brighton Cottages Dec 1978                      | 26/12/1978 | 1   |

|          |                                                  |            |     |
|----------|--------------------------------------------------|------------|-----|
| Dublin   | Melrose Park Oct 2002                            | 20/10/2002 | 1   |
| Dublin   | Bloody Stream Howth Near Dart Station Oct 2002   | 21/10/2002 | 1   |
| Dublin   | Bremore Court Balbriggan Nov 2000                | 05/11/2000 | 1   |
| Dublin   | Pinnock Hill Nov 2002                            | 14/11/2002 | 1   |
| Dublin   | Barton Drive Ballyboden Feb 1994                 | 03/02/1994 | 1   |
| Dublin   | School House Lane Sandyford Nov 1982             | 26/11/1982 | 1   |
| Dublin   | Liffey Chapelizod St Martins Row Nov 2000        | 05/11/2000 | 1   |
| Dublin   | Jobstown N81 Nov 2000                            | 05/11/2000 | 1   |
| Dublin   | Mount Carmel Park Firhouse Nov 2000              | 05/11/2000 | 1   |
| Dublin   | Kilosserly Rowlestown Swords Jan 1948            | 01/01/1948 | 1   |
| Galway   | Ballinasloe, Co. Galway, Nov 2009                | 19/11/2009 | 90+ |
| Galway   | Owenriff Oughterard Nov 1999                     | 28/11/1999 | 19  |
| Galway   | Maam Sept 1998                                   | 01/09/1998 | 2   |
| Galway   | Corrib Black at Cordorragh, Headford Nov 1999    | 27/11/1999 | 1   |
| Galway   | Oranmore Frenchfort recurring                    |            | 1   |
| Galway   | Corrib Uggoool November 1999                     | 28/11/1999 | 1   |
| Galway   | Knockaneevin Tynagh recurring                    |            | 1   |
| Kerry    | Kenmare River Finnihy 23 October 2008            | 23/10/2008 | 37  |
| Kerry    | Flesk Glenflesk November 1980                    | 01/11/1980 | 23  |
| Kerry    | Flesk Loo Bridge November 1980                   | 01/11/1980 | 23  |
| Kerry    | Ballylongford recurring                          |            | 12  |
| Kerry    | Ballylongford Village Feb 2002                   | 01/02/2002 | 10  |
| Kerry    | Ardfert recurring                                |            | 10  |
| Kerry    | Finnihy River at Finnihy Banks Estate Recurring  |            | 8   |
| Kerry    | Inchera Glenbeigh Recurring                      |            | 8   |
| Kerry    | Tralee, Co Kerry, Nov 2009                       | 19/11/2009 | 6   |
| Kerry    | Scarteen Park Kenmare Recurring                  |            | 6   |
| Kerry    | Ballinorig Tralee recurring                      |            | 5   |
| Kerry    | Kenmare Town Square Recurring                    |            | 5   |
| Kerry    | L7606 and Pier Kenmare Recurring                 |            | 5   |
| Kerry    | Cashen village recurring                         |            | 4   |
| Kerry    | Cashen Sea Wall - 10/02/2002                     | 10/02/2002 | 3   |
| Kerry    | Ardnabraher Ballinorig Tralee Aug 1997           | 31/08/1997 | 3   |
| Kerry    | N71 North of suspension bridge Kenmare Recurring |            | 2   |
| Kerry    | Ballycarty Cross Tralee Aug 1997                 | 31/08/1997 | 1   |
| Kerry    | Rahoonagh Ballybunnion Feb 2002                  | 01/02/2002 | 1   |
| Kerry    | Curraghatoosane Listowel Undated                 |            | 1   |
| Kerry    | Dicksgrrove Farranfore Recurring                 |            | 1   |
| Kerry    | Coolard recurring                                |            | 1   |
| Kerry    | Gortamullen Recurring                            |            | 1   |
| Kildare  | Waterways Estate, Sallins, Co. Kildare, Nov 09   | 29/11/2009 | 103 |
| Kildare  | Meadowbrook Estate Parson St Maynooth Nov 2000   | 05/11/2000 | 40  |
| Kildare  | Silleachain Mill Lane Leixlip Nov 2002           | 14/11/2002 | 5   |
| Kildare  | Ryewater Duncarraig, Leixlip Nov 2002            | 14/11/2002 | 4   |
| Kildare  | Allenswood road, Leixlip Nov 2002                | 14/11/2002 | 2   |
| Kildare  | Oldtown Road Junction, Celbridge Nov 2002        | 14/11/2002 | 2   |
| Kildare  | Newbridge Road Naas Recurring                    |            | 1   |
| Kildare  | Prosperous Recurring                             |            | 1   |
| Kildare  | Ardclough Road, Dangan Corner Nov 2002           | 14/11/2002 | 1   |
| Kilkenny | Nore Kilkenny March 1947                         | 17/03/1947 | 236 |
| Kilkenny | Nore Thomastown March 1947                       | 17/03/1947 | 115 |
| Kilkenny | Nore Kilkenny November 1931                      | 23/11/1931 | 100 |
| Kilkenny | Nore Johns Quay Johns St area Kilkenny recurring |            | 40  |
| Kilkenny | Kings River Callan March 1947                    | 17/03/1947 | 40  |
| Kilkenny | Nore Kilkenny Green St Irishtown recurring       |            | 30  |
| Kilkenny | Nore John's Quay Kilkenny Jan 1995               | 25/01/1995 | 20  |
| Kilkenny | Breaghagh Irishtown Kilkenny Jan 1995            | 25/01/1995 | 20  |
| Kilkenny | Pil Piltown recurring                            |            | 12  |

|          |                                                   |            |    |
|----------|---------------------------------------------------|------------|----|
| Kilkenny | Nore Green Street Kilkenny Jan 1995               | 25/01/1995 | 12 |
| Kilkenny | Breaghagh Circular Rd Kilkenny Oct 2006           | 26/10/2006 | 12 |
| Kilkenny | Nore John Street Kilkenny Jan 1995                | 25/01/1995 | 10 |
| Kilkenny | Nore Inistioge March 1947                         | 17/03/1947 | 10 |
| Kilkenny | Nore Breaghagh Vicar Street Kilkenny Jan 1995     | 25/01/1995 | 6  |
| Kilkenny | Breaghagh Kilkenny Blackmills Area recurring      |            | 5  |
| Kilkenny | Ballynamountain Bridge recurring                  |            | 2  |
| Kilkenny | Suir Newrath at Redbridge recurring.              |            | 1  |
| Kilkenny | Nore Bateman's Quay Kilkenny Jan 1995             | 25/01/1995 | 1  |
| Limerick | Clancy's Strand Harry's Mall Limerick Dec 1999    | 23/12/1999 | 60 |
| Leitrim  | Leitrim Village, Co. Leitrim, Nov 2009            | 19/11/2009 | 17 |
| Leitrim  | Carrick-on-Shannon, Co. Leitrim, Nov 2009         | 19/11/2009 | 10 |
| Leitrim  | Jamestown, Co. Leitrim, Nov 2009                  | 19/11/2009 | 3  |
| Leitrim  | Dromod, Co. Leitrim, Nov 2009                     | 19/11/2009 | 3  |
| Limerick | Bilboa Mulkear Cappamore Limerick recurring       |            | 46 |
| Limerick | Harry's Mall Limerick Feb 1997                    | 10/02/1997 | 30 |
| Limerick | Shannon Estuary Foynes Feb 2002                   | 01/02/2002 | 20 |
| Limerick | Clancy's Strand Limerick Feb 2002                 | 11/02/2002 | 12 |
| Limerick | Athea Co. Limerick Aug 2008                       | 31/07/2008 | 12 |
| Limerick | Athea Co. Limerick 02/09/2009                     | 02/09/2009 | 4  |
| Limerick | Corbally St Mary's Pk Limerick Dec 1999           | 25/12/1999 | 2  |
| Limerick | Corbally R463 Limerick Dec 1999                   | 25/12/1999 | 2  |
| Limerick | Meelick Bridge Limerick recurring                 |            | 2  |
| Limerick | Robertstown Shanagolden Recurring                 |            | 2  |
| Limerick | Mulkear Lismullane, Ballysimon Limerick Recurring |            | 1  |
| Limerick | Morgan's House, Foynes Turlough Recurring         |            | 1  |
| Limerick | Rosstemple Limerick recurring                     |            | 1  |
| Limerick | Deel Banoke Bridge Recurring                      |            | 1  |
| Limerick | Shanagolden Recurring                             |            | 1  |
| Limerick | Killard Redgate Dec 1999                          | 27/12/1999 | 1  |
| Limerick | Bunkey River Recurring                            |            | 1  |
| Louth    | Baltray, Co. Louth recurring                      |            | 18 |
| Louth    | Annagassan Recurring                              |            | 10 |
| Louth    | Seapoint GC, Co Louth Recurring                   |            | 3  |
| Louth    | Simcock's Lane/Trinity Street Junction Recurring  |            | 2  |
| Louth    | Proleek 2001                                      |            | 1  |
| Louth    | Public House, Market St., Carlingford. Undated    |            | 1  |
| Louth    | Townrath Recurring                                |            | 1  |
| Louth    | Carstown Recurring                                |            | 1  |
| Louth    | Clarkestown Lane, Termonfeckin (November 2002)    | 15/11/2002 | 1  |
| Mayo     | Ballynalty Mill Nov 1999                          | 28/11/1999 | 1  |
| Mayo     | Bunowen Chapel St., Louisburg Sep-Dec 1999        | 01/09/1999 | 1  |
| Mayo     | Clare Ballyhaunis Nov 1999                        | 28/11/1999 | 1  |
| Mayo     | Bellanaboy River Bellanaboy Bridge Sep 1985       | 21/09/1985 | 1  |
| Mayo     | Bellanaboy River Bellanaboy Bridge Sep 2003       | 19/09/2003 | 1  |
| Meath    | Tolka Clonee Nov 2000                             | 05/11/2000 | 62 |
| Meath    | Tolka Dunboyne Nov 2000                           | 05/11/2000 | 62 |
| Meath    | Tolka Batterstown Nov 2000                        | 05/11/2000 | 62 |
| Meath    | Mornington February 2002                          | 01/02/2002 | 30 |
| Meath    | Ardsallagh Recurring                              |            | 1  |
| Meath    | Gillstown CR 379/380 Recurring                    |            | 1  |
| Meath    | Dee Nobber Recurring                              |            | 1  |
| Meath    | Moortown Bridge R163 Recurring                    |            | 1  |
| Meath    | Piercetown Black Bull Recurring                   |            | 1  |
| Meath    | Fairyhouse Baltrasna Recurring                    |            | 1  |
| Meath    | Primatestown Recurring                            |            | 1  |
| Meath    | Mattock Wood Mill Bridge Recurring                |            | 1  |
| Meath    | Ringlestown/Kimessan CR 369 Recurring             |            | 1  |
| Meath    | North Commons Boreen, Trim Recurring              |            | 1  |
| Meath    | Phillistown, Trim CR452 Recurring                 |            | 1  |

|           |                                                    |            |     |
|-----------|----------------------------------------------------|------------|-----|
| Meath     | Ballinabrackey CR5 Recurring                       |            | 1   |
| Meath     | Navangate Street, Trim Recurring                   |            | 1   |
| Offaly    | Kennedy's Cross Roads, Birr Jan 1995               | 27/01/1995 | 1   |
| Roscommon | Athleague, Co. Roscommon, Nov 2009                 | 18/11/2009 | 27  |
| Roscommon | Roscommon Town, Nov 2009                           | 19/11/2009 | 10  |
| Roscommon | Cortober, Co. Roscommon, Nov 2009                  | 19/11/2009 | 7   |
| Roscommon | Lisalway, Co. Roscommon, Nov 2009                  | 19/11/2009 | 2   |
| Roscommon | Milltown, Castleplunkett, Nov 2009                 | 19/11/2009 | 1   |
| Roscommon | Ballintubber, Co. Roscommon, Nov 2009              | 19/11/2009 | 1   |
| Sligo     | Drumcliff Ballynagalliagh Bridge Nov 2002          | 08/11/2002 | 1   |
| Tipperary | Suir Clonmel Nov 2000                              | 05/11/2000 | 260 |
| Tipperary | Suir Clonmel Jan 1996                              | 04/01/1996 | 250 |
| Tipperary | Suir Carrick-on-Suir Nov 2000                      | 06/11/2000 | 184 |
| Tipperary | Clonmel, Co. Tipperary, Nov 2009                   | 19/11/2009 | 30  |
| Tipperary | Coolaholliga (North of Nenagh) Recurring           |            | 10  |
| Tipperary | Ardfinnan, Co. Tipperary, Nov 2009                 | 19/11/2009 | 8   |
| Tipperary | Knockavilla, Co. Tipperary, Nov 2009               | 19/11/2009 | 8   |
| Tipperary | Tannersrath Clonmel Nov 2000                       | 05/11/2000 | 7   |
| Tipperary | Kilmastulla Recurring                              |            | 5   |
| Tipperary | Ballynahow Cross to Bohereenbueen Bridge Recurring |            | 5   |
| Tipperary | Suir Killaloe Upper Nov 2000                       | 05/11/2000 | 5   |
| Tipperary | Hollyford Recurring                                |            | 4   |
| Tipperary | Burncourt River Burncourt Nov 2000                 | 05/11/2000 | 3   |
| Tipperary | Clogheen Village Recurring                         |            | 2   |
| Tipperary | Glencallaghan Recurring                            |            | 2   |
| Tipperary | Skeheenaranky Recurring                            |            | 2   |
| Tipperary | Reddanskwalk/Clonmorewalk Recurring                |            | 2   |
| Tipperary | Seskin near Clonmel Nov 2000                       | 05/11/2000 | 2   |
| Tipperary | Clogheen Nov 2000                                  | 05/11/2000 | 2   |
| Tipperary | Fethard Nov 2000                                   | 05/11/2000 | 2   |
| Tipperary | Multeen Clone Bridge Tipperary recurring           |            | 1   |
| Tipperary | Drumminagleagh to Ballyoughter Recurring           |            | 1   |
| Tipperary | Ballymurreen Bridge Littleton Recurring            |            | 1   |
| Tipperary | Springfort Cross Undated                           |            | 1   |
| Tipperary | Scarragh 2004                                      |            | 1   |
| Tipperary | Barry's Bridge Recurring                           |            | 1   |
| Tipperary | Grange Recurring                                   |            | 1   |
| Tipperary | Renaghmore Recurring                               |            | 1   |
| Tipperary | Cappagh Recurring                                  |            | 1   |
| Tipperary | Kilenaule to Gortnahoo Road Recurring              |            | 1   |
| Tipperary | Cappa New Bridge Tankerstown Recurring             |            | 1   |
| Tipperary | Clonmore Tipperary Recurring                       |            | 1   |
| Tipperary | Brackbaun Bridge May 2000                          | 16/05/2000 | 1   |
| Tipperary | Cullen Village Recurring                           |            | 1   |
| Tipperary | Ballynamrossagh Recurring                          |            | 1   |
| Tipperary | Newtown Tipperary Recurring                        |            | 1   |
| Tipperary | Gortavoher Recurring                               |            | 1   |
| Tipperary | Moandoherdagh Recurring                            |            | 1   |
| Tipperary | Kilcash Nov 2000                                   | 06/11/2000 | 1   |
| Tipperary | Carrickcneen near Clonmel Nov 2000                 | 05/11/2000 | 1   |
| Tipperary | Suir Ardfinnan Nov 2000                            | 05/11/2000 | 1   |
| Tipperary | Ballyporeen Nov 2000                               | 05/11/2000 | 1   |
| Tipperary | Shronell Nov 2000                                  | 05/11/2000 | 1   |
| Tipperary | Limerick Junction Nov 2000                         | 05/11/2000 | 1   |
| Tipperary | Clonganhue Nov 2000                                | 05/11/2000 | 1   |
| Waterford | Monyvroee recurring                                |            | 2   |
| Waterford | Blackwater Cappoquin Boathouse recurring           |            | 1   |
| Waterford | Woodstown W71 recurring                            |            | 1   |
| Waterford | Cheekpoint recurring                               |            | 1   |
| Waterford | Clodiagh Clonea recurring                          |            | 1   |
| Waterford | Suir Sir Thomas Br Twomilebridge Nov 2000          | 06/11/2000 | 1   |

|           |                                                    |            |    |
|-----------|----------------------------------------------------|------------|----|
| Westmeath | Athlone, River Shannon                             | 19/11/2009 | 75 |
| Westmeath | AI River, Willow Park, Athlone, Nov 2002           | 10/11/2002 | 60 |
| Westmeath | Kinnegad, Westmeath, Nov 20099                     | 19/11/2009 | 2  |
| Westmeath | Gaybrook, Mullingar, Westmeath                     | 19/11/2009 | 1  |
| Wexford   | Bridgetown recurring                               |            | 5  |
| Wexford   | Essex Bridge Barnadown Lower Nov 2000              | 05/11/2000 | 4  |
| Wexford   | Enniscorthy, Co Wexford, Nov 2009                  | 18/11/2009 | 2  |
| Wexford   | Owenavorrhagh Killenagh Bridge Nov 2000            | 05/11/2000 | 2  |
| Wexford   | Polehore recurring                                 |            | 1  |
| Wexford   | Curracloe R743 White Gap recurring                 |            | 1  |
| Wexford   | Rosslare Harbour MVD recurring                     |            | 1  |
| Wexford   | Drinagh Slob Road recurring                        |            | 1  |
| Wexford   | Bann Scarawalsh Nov 2000                           | 06/11/2000 | 1  |
| Wexford   | The Still Pond Fairfield Enniscorthy undated       |            | 1  |
| Wicklow   | Donard Village Undated                             |            | 3  |
| Wicklow   | Chapel Lane, Baltinglass, Co. Wicklow<br>Recurring |            | 2  |
| Wicklow   | Aughrim River Coolahullin recurring                |            | 1  |
| Wicklow   | Barnacleagh Summer 2004                            |            | 1  |
| Wicklow   | Macreddin Aughrim North Recurring                  |            | 1  |
| Wicklow   | Kilcrouney Lane Recurring                          |            | 1  |
| Wicklow   | Forge Road Enniskerry Undated                      |            | 1  |
| Wicklow   | Rockview Arklow Oct 2004                           | 26/10/2004 | 1  |

## C.4 RECORDS OF PAST FLOODS RELATED TO INFRASTRUCTURE

Set out below are the floods related to infrastructure owned by the local authorities, which have been reported by the Local Authorities

| County | Location                                                                       | Type of Event                                                                                                 | Date                                      | Damage Caused                                                                                        |
|--------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------|
| Clare  | Town of Shannon                                                                | Prolonged Rainfall<br>Failure of Pumps                                                                        | Not yet happened                          | Town, Airport Flooded                                                                                |
| Cork   | Water reservoir, Glashboy waterworks, Glanmire                                 | Broken Reservoir outlet pipe - New retaining wall built to retain any future leaks                            | 1991                                      | Flooding to adjacent private houses                                                                  |
| Cork   | Ballinacurra, Whitegate Road                                                   | Blocked culvert - Screen since installed                                                                      | 01/01/2009                                | Approx 20 houses flooded                                                                             |
| Cork   | Ballymackeera                                                                  | Flooding due to overloaded storm drainage                                                                     | Annually                                  | Approx 8 premises flooded regularly                                                                  |
| Cork   | Beech Road, Ballincollig                                                       | Surcharging of foul sewers                                                                                    | Dec 2009 and Previously                   | Flooding of 2 No. dwellings and risk to public health                                                |
| Cork   | Church Road, Douglas                                                           | Water main Break                                                                                              | Sept 2009, Nov 2009, Sept 2010            | Road flooded and impassable to traffic. Several properties damaged. Repeat event                     |
| Cork   | Douglas Community Park Stream                                                  | Flood from deficiency in Urban Storm-water systems                                                            | 01/11/2009                                | Flooding of Community Park, Flooding in Shopping Centre Plaza, Potential Flooding of Shopping Centre |
| Cork   | Innishmore, Ballincollig                                                       | Break on Cork harbour and City truck water main                                                               | 01/08/2010                                | Flooding of Ballincollig Regional Training Centre and Cork County Council tar depot                  |
| Cork   | L2454 Southern Fruit / Lehenaghmore / Togher Roundabout                        | Flood from deficiency in Urban Storm-water systems                                                            | Oct & Nov 2000; Nov 2002; Aug 2004        | Flooding of over 50 dwellings and commercial premises                                                |
| Cork   | L2460/N25 Junction                                                             | Flood from deficiency in Capacity of Trash Screen and Urban Storm-water System - Trash screen being monitored | 01/11/2009                                | Flooding of Road / Potential Flooding of Kinsale Road Roundabout                                     |
| Cork   | L2479 The Glen, Glenbrook                                                      | Flood from deficiency in Urban Storm-water systems                                                            | 01/11/2009                                | Flooding of dwellings, damage to vehicles, Significant debris on Regional Road                       |
| Cork   | N28/L2454 Ringaskiddy / Hammond Land / Maritime College / Access to Naval Base | Flood from deficiency in Urban Storm-water systems                                                            | Feb 1994, Oct 2004                        | Flooding & Closure of Road and Access to Naval Base / Potential Flooding of Maritime College         |
| Cork   | Primrose Hill, Tower, Blarney                                                  | Surcharging of foul sewers                                                                                    | Oct 2009 and a number of times previously | Flooding of 2 No. dwellings and risk to public health                                                |

|             |                                                 |                                                    |                                                        |                                                                                                                                                |
|-------------|-------------------------------------------------|----------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Cork        | R611 Carrigaline Main St.                       | Flood from deficiency in Urban Storm-water systems | Oct & Nov 2000, Nov 2002, Oct 2004, Oct 2006, Nov 2009 | Road closed - Pub & Shops Flooded                                                                                                              |
| Cork        | Ringaskiddy (outside Marine College)            | Water main break                                   | Oct 2007, Nov 2008, Apr 2010                           | Road flooded and impassable to traffic to Marine College and Naval base. Repeat event                                                          |
| Cork        | South Main Street, Bandon                       | Surcharging of sewage network                      | Regular                                                | Public health risk and damage to properties on Western side of South Main St., Bandon                                                          |
| Dublin City | Baldoyle                                        | Pluvial                                            |                                                        | Below sea level. Back from the coast by some distance but however it remains at risk.                                                          |
| Dublin City | Pearse Square Creighton Street                  | Pluvial                                            |                                                        | c. 12 basements in this area at risk, previously have flooded.                                                                                 |
| Dublin City | Ranelagh/Rathmines - Swan Place, Lansdowne Road | Pluvial                                            |                                                        | Basement flooding problem here 2003. Frequent pluvial flooding events, Jury Hotel Flooded                                                      |
| Dublin City | Mourne Road near Errigal Road                   | Pluvial                                            |                                                        | Road floods a few times a year                                                                                                                 |
| Dublin City | 62 Parkmore Drive rear,                         | Pluvial                                            |                                                        | near Corrib Road, back gardens flooded.                                                                                                        |
| Dublin City | 14 Leeson Park Avenue                           | Pluvial                                            |                                                        | Road Flooded - garden flooded                                                                                                                  |
| Dublin City | Chapelizod, bottom of hill                      | Pluvial                                            |                                                        | C. 6 houses flooded , walls overturned                                                                                                         |
| Dublin City | 1A Chapelizod Road                              | Pluvial                                            |                                                        | 2 houses and basements flooded due to snow melt and rain.                                                                                      |
| Dublin City | Blackhorse Avenue (Park Crescent)               | Pluvial                                            |                                                        | Mostly road flooding, 5 apartments flooded.                                                                                                    |
| Dublin City | Villa Park                                      | Pluvial                                            |                                                        |                                                                                                                                                |
| Dublin City | Seafeld Road (East/West?)                       | Pluvial                                            |                                                        | Road Flooding, gardens flooded                                                                                                                 |
| Dublin City | Griffith Avenue generally                       | Pluvial                                            |                                                        | There are low lying (bowls) along this road which regularly suffer from flooding.                                                              |
| Dublin City | Hardiman Road                                   | Pluvial                                            |                                                        | Houses flooded?                                                                                                                                |
| Dublin City | Inverness Road, off Philipsburg Avenue          | Pluvial                                            |                                                        | Basements flooded.                                                                                                                             |
| Dublin City | Santry Avenue                                   | Pluvial                                            |                                                        | Road flooding                                                                                                                                  |
| Dublin City | Pearse Station area (south campshires area)     | Pluvial / Fluvial                                  |                                                        | A few instances of pluvial flooding, but at risk. High proportion of basements here. Schemes to start soon - currently at detail design stage. |

|             |                                                                                                                                                        |                                |  |                                                                                                                               |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------|
| Dublin City | Cabra, Glendhu area to Ashington, leix Road Cuala, Road, offaly road                                                                                   | Pluvial / Fluvial              |  | Pluvial flooding, properties flooded regularly. Improvement scheme now on-going.                                              |
| Dublin City | Martin's Row, Chapelizod                                                                                                                               | Pluvial / Fluvial              |  | Drainage from Phoenix park, road and properties impacted, flood often. Some works were carried out.                           |
| Dublin City | North Strand area, Batview Avenue, Foster Terrace, Portland Place, Jones Road, Clonliffe Road.                                                         | Pluvial / Fluvial / GW         |  | Low Lying area, in a bowl, basements regularly flooded                                                                        |
| Dublin City | Pearse Street                                                                                                                                          | Pluvial / Tidal                |  | Once a year basements at 151 to 142 and 78, 79 and 76 flood                                                                   |
| Dublin City | Gordon Street, Doris and Barrow Street                                                                                                                 | Pluvial / Tidal                |  | C. 20 houses flood, mainly from passing cars, the wash coming in the doors, area is a bowl                                    |
| Dublin City | Macken Street                                                                                                                                          | Pluvial / Tidal                |  | Road and Grand Canal Theatre Basement flooded                                                                                 |
| Dublin City | Areas around Shrewsbury PS and Ailesbury PS                                                                                                            | Pluvial / Tidal / Ground water |  | Stations built in 1960's to prevent flooding. Ailesbury houses built on an old pond / lake                                    |
| Dublin City | Donnycarney, upper wad, Collins Ave East, Clanmoyle Road, Collins Park, Elm Mount Avenue, Shanrath Road, Swords Road, Shangan Gardens, Crestfield Road | Pluvial Fluvial                |  | River Wad flooded. Study on-going. 91 houses and schools pub and sports centre flooded in 2009 and 2008                       |
| Dublin City | Kilmainham                                                                                                                                             | Fluvial / Pluvial              |  | Royal Hospital, Mount Brown, back of properties risk from Camac river. Flooding from the front of the properties from pluvial |
| Dublin City | Suir Road                                                                                                                                              | Fluvial / Pluvial              |  | South side, houses flooded but mostly due to road flooding and wave caused by passing traffic.                                |
| Dublin City | Mount Brown / Old Kilmainham Lane                                                                                                                      | Fluvial / Pluvial              |  | Low lying areas, houses flooded                                                                                               |
| Dublin City | Cabra, leix Road Cuala, Road, offaly road, Dingle Road, Drumcliffe Drive, Carnlough Road                                                               | Fluvial Pluvial                |  | Pluvial flooding, properties flooded regularly. Improvement scheme now on-going.                                              |
| Dublin City | Ballygall Crescent, Fairways Green, Griffith Close                                                                                                     | Fluvial Pluvial                |  | 2008/9, houses flooded. Scheme being designed                                                                                 |

|               |                                                                                                                                     |                                                                                                 |                        |                                                                                                                                                                                                                                        |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dublin City   | Clonliffe Road / Ballybough                                                                                                         | Fluvial Pluvial Tidal                                                                           |                        | Scheme completed. Lower sections close to Clonliffe Road at high risk from pluvial. Low lying therefore storage issue. Propsed to deal with by using mobile high capacity pumps to pump ponded surface water to nearest river channel. |
| Dublin City   | East wall generally, ossary Road, Church Road, Hawthorn Terrace, St Mary's Road, Shamrock Cottages, West Road, East Link Toll Plaza | Tidal, Ground water/ Pluvial                                                                    |                        | flooded in Feb 2002, Tidal Defence works in Place                                                                                                                                                                                      |
| Dublin City   | Kincora Court, Crab Lake pumping station, Clontarf Laneway off Conquer Hill                                                         | Tidal, Groundwater, Pluvial                                                                     |                        | Protects Kincora Estate Clontarf, marked on map, near bus station.                                                                                                                                                                     |
| D.L. Rathdown | Dalkey - Dart Line                                                                                                                  | Pluvial / Storm-water                                                                           | 10/09/2008             | Dart Line Flooded - Trains stopped                                                                                                                                                                                                     |
| D.L. Rathdown | Glastule, Dun Laoghaire                                                                                                             | Pluvial / Storm-water                                                                           | 10/09/2008             | Flooding to 10 Properties                                                                                                                                                                                                              |
| D.L. Rathdown | Killcross, Sandyford                                                                                                                | Flooding of one house arising from nearby burst water main - Localised section of pipe replaced | 2002                   | Fixtures and Fittings                                                                                                                                                                                                                  |
| Galway        | Loughrea Town                                                                                                                       | Storm Water System                                                                              | 01/11/2009             | 3 Houses                                                                                                                                                                                                                               |
| Kerry         | Ardfert                                                                                                                             | Surcharged sewers                                                                               | 1-2 years              | 3 Commercial Premises                                                                                                                                                                                                                  |
| Kerry         | Ballylongford                                                                                                                       | Urban Storm-water System - Tide-locking during heavy rainfall event                             | 1997, 2003             | 15 houses approx                                                                                                                                                                                                                       |
| Kerry         | Causeways                                                                                                                           | Undersized pipes                                                                                |                        | 1 house                                                                                                                                                                                                                                |
| Kerry         | Listowel                                                                                                                            | Urban Storm-water System - Some mitigation measures implemented                                 | 8th Dec 2000           | Domestic houses - approx 20 houses                                                                                                                                                                                                     |
| Kerry         | Sneem                                                                                                                               | Heavy rainfall open drain not big enough                                                        | 2009                   |                                                                                                                                                                                                                                        |
| Kerry         | Tralee - Ballymullen-Skehanagh                                                                                                      | Urban Storm-water System - Tide-locking during heavy rainfall event                             | 2010 Regularly         | 50 houses                                                                                                                                                                                                                              |
| Leitrim       | Bridge Street, Carrick-on-Shannon                                                                                                   | Rain Storm                                                                                      | 2008                   | Properties, Cars                                                                                                                                                                                                                       |
| Leitrim       | Near Manorhamilton                                                                                                                  | Water Mains burst - Minor Impacts                                                               |                        |                                                                                                                                                                                                                                        |
| Limerick      | Abbeyfeale, Bridge Street                                                                                                           | Storm-water overflows - CSO Issue                                                               | Once a year            | Houses                                                                                                                                                                                                                                 |
| Limerick      | Ballysimon Road                                                                                                                     | Pluvial - Monocline Restriction                                                                 | Winter 2009-10         | Road flooding                                                                                                                                                                                                                          |
| Limerick      | Ballysimon to Crossagela                                                                                                            | Storm-water - Study undertaken                                                                  | Couple of times a year | Road and Industrial area                                                                                                                                                                                                               |
| Limerick      | Castletroy, Entrance to University                                                                                                  | Storm-water                                                                                     | Several times a year   | Road flooded                                                                                                                                                                                                                           |
| Limerick      | Coonagh Cross, Limerick City                                                                                                        | Storm-water - Old culverts                                                                      |                        |                                                                                                                                                                                                                                        |

|                 |                                                                  |                                                                                       |                                         |                                                            |
|-----------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------|------------------------------------------------------------|
| Limerick        | Foynes, Dernish Avenue                                           | Storm-water - Some works undertaken                                                   | Once every four or five years           | Houses                                                     |
| Limerick        | Fr Russell Road, Limerick City                                   | Storm-water                                                                           |                                         |                                                            |
| Limerick        | Galbally Village                                                 |                                                                                       |                                         |                                                            |
| Limerick        | Mungret, Limerick                                                | Storm-water - Works being applied for                                                 | Once a year                             | Creates an Island                                          |
| Limerick        | N69                                                              |                                                                                       |                                         |                                                            |
| Limerick        | Newcastle West                                                   | Combined Sewerage Outfall                                                             | Couple of times a year                  | Houses - Minor                                             |
| Limerick        | Newcastle West / Athlea                                          | Storm-water                                                                           | July / August 2008                      | House                                                      |
| Limerick        | Rossbrien                                                        | Storm-water into Culvert / Tidal                                                      | Once a year                             | Houses, Estates                                            |
| Limerick        | Woodvale, Foynes                                                 | Water mains Flood - Some pipes replaced                                               | 1996 - Dec                              | Houses flooded                                             |
| Louth           | Some areas of Drogheda                                           | Following heavy rainfall – Storm-water drainage capacity being assessed               |                                         |                                                            |
| Louth           | Sone areas of Dundalk                                            | Large scale rupture on trunk mains – Suspected Risk                                   |                                         | Not Assessed                                               |
| Louth           | South Drogheda                                                   | Large scale rupture on trunk mains – Suspected Risk                                   |                                         | Not Assessed                                               |
| Mayo            | Westport                                                         | Surcharge of public sewer due to infiltration of surface water due to heavy rain      | July 2010 and 2 other occasions in 2009 | Public health issues. No damage to property                |
| Meath           | Donore                                                           | Large scale rupture on trunk mains – Suspected Risk                                   |                                         | Not Assessed                                               |
| Tipperary South | Clonmel, Mary St.                                                | Urban Storm-water system surcharge                                                    | 2004                                    | Houses flooded                                             |
| Tipperary South | Clonmel, Upper Irishtown                                         | Urban Storm-water system surcharge                                                    | 2004                                    | 10 No. houses flooded                                      |
| Tipperary South | Clonmel, William St., Upper Gladstone St., Bolton St, Queens St. | Urban Storm-water system surcharge                                                    | 2004                                    | Approx 30 No. Houses and 1 No. Pub                         |
| Tipperary South | Clonmel-Heyworth Road / Frank Drohan Road                        | Water main burst                                                                      |                                         | 2. No. houses flooded                                      |
| Waterford       | East Waterford Water Supply Scheme (EWWSS): Kilmeaden Village    | Burst Water Mains: 600mm AC - Automated valving since installed to prevent recurrence | 01/12/2009                              | Flooding of roadways and minor flooding of commercial area |

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## APPENDIX D

### RECEPTOR VULNERABILITES

| Risk Category | Sub-Category       | Receptor Group        | Receptor                                                 | Receptor Type | Basic Classification   |
|---------------|--------------------|-----------------------|----------------------------------------------------------|---------------|------------------------|
| Social        | Human Health       | Death, Injury, Stress | Geo-Directory Property Database - Residential Properties | Point         | Low Vulnerability      |
|               | Community          | Education             | Primary Schools                                          | Point         | High Vulnerability     |
|               |                    |                       | Post Primary Schools                                     | Point         | High Vulnerability     |
|               |                    |                       | Third Level                                              | Point         | High Vulnerability     |
|               |                    | Emergency Services    | Fire Stations                                            | Point         | High Vulnerability     |
|               |                    |                       | Garda Stations                                           | Point         | Moderate Vulnerability |
|               |                    |                       | Civil Defence                                            | Point         | Moderate Vulnerability |
|               |                    | Governance            | OPW / Government Buildings                               | Point         | VARIABLE               |
|               |                    | Health Services       | Nursing Homes                                            | Point         | Extreme Vulnerability  |
|               |                    |                       | Hospitals                                                | Point         | Critical Vulnerability |
|               |                    |                       | Other Health Services (e.g., Health Centres)             | Point         | Moderate Vulnerability |
| Economic      | Business           |                       | Geo-Directory Property Database - Commercial Properties  | Point         | Low Vulnerability      |
|               | Infrastructure     | Power                 | ESB Power Stations                                       | Point         | Critical Vulnerability |
|               |                    |                       | ESB HV Substations                                       | Point         | Extreme Vulnerability  |
|               |                    |                       | Bord Gais Assets - Lower Priority                        | Point         | Low Vulnerability      |
|               |                    |                       | Bord Gais Assets - Higher Priority                       | Point         | Moderate Vulnerability |
|               |                    |                       | Bord Gais Assets                                         | Point         | Moderate Vulnerability |
|               |                    | Water                 | Water Treatment Plants                                   | Point         | Moderate Vulnerability |
|               |                    |                       | Wastewater Treatment Plants                              | Point         | Moderate Vulnerability |
|               |                    | Telecommunications    | Eircom Assets - Non-Core Exchange                        | Point         | Low Vulnerability      |
|               |                    |                       | Eircom Assets - Core Exchange                            | Point         | Moderate Vulnerability |
|               |                    | Ports                 | Ports and Harbours                                       | Point         | High Vulnerability     |
|               |                    | Airports              | Airfields and Aerodromes                                 | Point         | Moderate Vulnerability |
|               |                    |                       | Airports - National and Regional                         | Point         | Extreme Vulnerability  |
|               |                    |                       | Airports - International                                 | Point         | Critical Vulnerability |
|               | Agriculture & Land | Agricultural Land     | Agricultural Land                                        | Area          | Areal Assessment       |
|               |                    |                       | Forestry                                                 | Area          | Areal Assessment       |

| Risk Category     | Sub-Category      | Receptor Group          | Receptor                          | Receptor Type | Basic Classification   |
|-------------------|-------------------|-------------------------|-----------------------------------|---------------|------------------------|
| Cultural Heritage | Cultural Heritage | Built Heritage          | Architectural Heritage - Local    | Point         | Low Vulnerability      |
|                   |                   |                         | Architectural Heritage - Regional | Point         | Low Vulnerability      |
|                   |                   |                         | Architectural Heritage - National | Point         | Moderate Vulnerability |
|                   |                   | Museums                 | Museums and Art Galleries         | Point         | VARIABLE               |
|                   |                   | Archaeological Heritage | National Monuments                | Point         | VARIABLE               |
|                   |                   |                         | UNESCO World Heritage Sites       | Point         | Critical Vulnerability |
| Environment       | Designated Sites  | Designated Sites        | SAC                               | Area          | VARIABLE               |
|                   |                   |                         | SPA                               | Area          | VARIABLE               |

## APPENDIX E

### PREDICTIVE FLOOD RISK ASSESSMENT OUTCOMES

#### E.1. PREDICTIVE ANALYSIS OUTCOMES FOR FLUVIAL AND COASTAL FLOOD RISK

The locations where the predictive Flood Risk Index is greater than 150 based on fluvial and coastal flooding are set out below. The process for the determination of the Flood Risk Index is described in Section 4.4 of the main body of the report.

| County | ID No. | Location                  | Flood Risk Index |
|--------|--------|---------------------------|------------------|
| Carlow | 140151 | Bagenalstown              | 850              |
| Carlow | 120131 | Ballykealey               | 315              |
| Carlow | 120133 | Bunclody                  | 280              |
| Carlow | 140155 | Carlow                    | 11467            |
| Carlow | 140160 | Fenniscourt               | 160              |
| Carlow | 140161 | Garryhundon               | 170              |
| Carlow | 140166 | Leighlinbridge            | 815              |
| Carlow | 140171 | Oldleighlin & Seskin Lowe | 365              |
| Carlow | 120141 | Tullow                    | 774              |
| Cavan  | 360566 | Annagelliff               | 180              |
| Cavan  | 360568 | Ballyconnell              | 503              |
| Cavan  | 360570 | Bawnboy                   | 574              |
| Cavan  | 360571 | Blacklion                 | 231              |
| Cavan  | 360572 | Cavan                     | 3655             |
| Cavan  | 360574 | Lough Oughter Islands     | 225              |
| Cavan  | 70038  | Mullagh                   | 324              |
| Cavan  | 70044  | Virginia                  | 595              |
| Clare  | 250402 | 1MON_Inishcaltra          | 25290            |
| Clare  | 250405 | Annacarriga               | 251              |
| Clare  | 250412 | Bridgetown                | 285              |
| Clare  | 270471 | Bunratty                  | 1670             |
| Clare  | 280484 | Carrowmore                | 846              |
| Clare  | 270473 | Cranny                    | 2520             |
| Clare  | 280485 | Doolin                    | 155              |
| Clare  | 250423 | Drumandoora               | 270              |
| Clare  | 270474 | Ennis                     | 35174            |
| Clare  | 270475 | Kilkee                    | 1013             |
| Clare  | 270476 | Kilrush                   | 567              |
| Clare  | 270477 | Limerick City             | 43961            |
| Clare  | 270478 | Lissan West               | 425              |
| Clare  | 270479 | Newmarget On Fergus       | 170              |
| Clare  | 250434 | O'Briensbridge            | 176              |
| Clare  | 270480 | Quinn                     | 224              |
| Clare  | 250439 | Raheen                    | 564              |
| Clare  | 290491 | Scanlans Island & Environ | 174              |
| Clare  | 270481 | Shannon                   | 99767            |
| Clare  | 270482 | Sixmilebridge             | 829              |
| Clare  | 280486 | Spanish Point             | 190              |
| Cork   | 180270 | Ballyclough               | 790              |
| Cork   | 190292 | Ballymakeery & Bally      | 839              |
| Cork   | 200293 | Bandon                    | 3823             |

|         |        |                           |       |
|---------|--------|---------------------------|-------|
| Cork    | 210307 | Bantry                    | 3723  |
| Cork    | 180268 | Buttevant                 | 326   |
| Cork    | 190271 | Carrigadrohid             | 25180 |
| Cork    | 190289 | Carrigaline               | 768   |
| Cork    | 180250 | Castlelyons               | 321   |
| Cork    | 200294 | Clonakilty                | 3896  |
| Cork    | 190273 | Coachford                 | 235   |
| Cork    | 190286 | Cork City                 | 34386 |
| Cork    | 190278 | Curraleigh                | 27530 |
| Cork    | 190291 | Douglas                   | 485   |
| Cork    | 200295 | Dromore                   | 310   |
| Cork    | 200296 | Dunderrow                 | 220   |
| Cork    | 200297 | Dunmanway                 | 480   |
| Cork    | 210309 | Durrus                    | 419   |
| Cork    | 180252 | Fermoy                    | 4046  |
| Cork    | 180253 | Freemount                 | 755   |
| Cork    | 190290 | Glanmire                  | 162   |
| Cork    | 190285 | Glanmire North (Sall      | 654   |
| Cork    | 190268 | Inchigeelagh              | 250   |
| Cork    | 200298 | Inishannon                | 537   |
| Cork    | 180254 | Kanturk                   | 1100  |
| Cork    | 210311 | Kealkill                  | 191   |
| Cork    | 210313 | Kilcrohane                | 848   |
| Cork    | 180256 | Killavullen               | 573   |
| Cork    | 190274 | Killeagh                  | 316   |
| Cork    | 190287 | Kilnaglery (SE Carri      | 320   |
| Cork    | 200299 | Kinsale                   | 214   |
| Cork    | 190275 | Ladysbridge               | 173   |
| Cork    | 180259 | Liscarroll                | 151   |
| Cork    | 190284 | Little Island             | 507   |
| Cork    | 180261 | Lougheagle                | 150   |
| Cork    | 190270 | Macroom                   | 777   |
| Cork    | 180262 | Mallow                    | 1980  |
| Cork    | 190279 | Middleton & Ballynac      | 2875  |
| Cork    | 190281 | Midleton North (Broo      | 259   |
| Cork    | 180269 | Millford Bridge           | 270   |
| Cork    | 200300 | Minane Bridge             | 273   |
| Cork    | 180263 | Mitchelstown              | 480   |
| Cork    | 190276 | Mogeely                   | 388   |
| Cork    | 180264 | New Twopothouse Village   | 190   |
| Cork    | 190283 | Passage West              | 200   |
| Cork    | 180265 | Rathcormack               | 751   |
| Cork    | 230360 | Rockchapel                | 160   |
| Cork    | 200301 | Ross Carbery              | 427   |
| Cork    | 210314 | Rossmore                  | 160   |
| Cork    | 200302 | Skibbereen                | 1004  |
| Cork    | 200303 | Skull                     | 660   |
| Cork    | 190269 | Teergay                   | 162   |
| Cork    | 190288 | Togher                    | 1623  |
| Cork    | 190280 | Tower                     | 154   |
| Cork    | 190282 | Whitegate                 | 199   |
| Cork    | 190272 | Youghal South (Clayc      | 181   |
| Cork    | 190277 |                           | 686   |
| Donegal | 360565 | 1ESB_Cloghore             | 2500  |
| Donegal | 380590 | 38_Carrickart Uplands_100 | 190   |
| Donegal | 10001  | Altnapaste                | 171   |
| Donegal | 380591 | Annagary                  | 199   |
| Donegal | 380592 | Ardara                    | 424   |

|         |        |                         |        |
|---------|--------|-------------------------|--------|
| Donegal | 10002  | Ballybofey              | 3476   |
| Donegal | 390598 | Ballymaleel             | 340    |
| Donegal | 380598 | Ballymore Lower         | 154    |
| Donegal | 360569 | Ballyshannon            | 61040  |
| Donegal | 390599 | Bridge End              | 259    |
| Donegal | 390600 | Buncrana                | 2418   |
| Donegal | 390601 | Burnfoot                | 551    |
| Donegal | 400616 | Carndonagh              | 2115   |
| Donegal | 380593 | Carrowcannon            | 170    |
| Donegal | 380594 | Carrowkeel_100713       | 270    |
| Donegal | 10003  | Castlefinn              | 274    |
| Donegal | 390602 | Castlequarter           | 200    |
| Donegal | 10004  | Churchtown              | 150    |
| Donegal | 400617 | Clonmany                | 407    |
| Donegal | 10005  | Convoy                  | 567    |
| Donegal | 370580 | Donegal                 | 384    |
| Donegal | 380595 | Downies                 | 479    |
| Donegal | 390603 | Drumgohill              | 300    |
| Donegal | 380596 | Dunfanaghy              | 704    |
| Donegal | 370582 | Frosses                 | 150    |
| Donegal | 10006  | Glencovet               | 151    |
| Donegal | 380597 | Glenties                | 362    |
| Donegal | 370583 | Inver                   | 202    |
| Donegal | 370584 | Kilcar                  | 150    |
| Donegal | 370585 | Killybegs               | 717    |
| Donegal | 10007  | Killygordon             | 492    |
| Donegal | 390606 | Kilmacrenan             | 280    |
| Donegal | 370586 | Laghy                   | 183    |
| Donegal | 390607 | Letterkenny             | 7058   |
| Donegal | 10008  | Lifford                 | 160    |
| Donegal | 400620 | Malin                   | 529    |
| Donegal | 390609 | Millford                | 160    |
| Donegal | 400621 | Moville                 | 444    |
| Donegal | 400622 | Muff                    | 260    |
| Donegal | 390610 | Newtown Cunningham      | 531    |
| Donegal | 370587 | Rathinny Near Ballintra | 460    |
| Donegal | 390611 | Rathmelton              | 251    |
| Donegal | 390613 | Rathmullan              | 500    |
| Donegal | 390614 | Speenogue               | 290    |
| Donegal | 350563 | Tullaghan               | 296    |
| Dublin  | 90067  | 1ESB_Blackrock          | 343    |
| Dublin  | 80046  | 1NUR_Balrothery         | 2730   |
| Dublin  | 80047  | 1NUR_Luttrells          | 2520   |
| Dublin  | 80048  | 1NUR_Murragh            | 2520   |
| Dublin  | 80050  | 1SCH_Rowlestown         | 330    |
| Dublin  | 90070  | Adamstown               | 1056   |
| Dublin  | 80053  | Balbriggan              | 4171   |
| Dublin  | 90071  | Balgriffin              | 330    |
| Dublin  | 90072  | Belcamp Park            | 340    |
| Dublin  | 100114 | Bray                    | 4680   |
| Dublin  | 90081  | Clontarf                | 769    |
| Dublin  | 80055  | Donabate                | 166    |
| Dublin  | 90082  | Dublin City             | 604134 |
| Dublin  | 90084  | Finglas, Glasnevin      | 3670   |
| Dublin  | 90088  | Kinsaley                | 520    |
| Dublin  | 100121 | Loughlinstown           | 4660   |
| Dublin  | 90090  | Lucan To Chapelizod     | 10424  |
| Dublin  | 80057  | Lusk                    | 300    |

|        |        |                           |       |
|--------|--------|---------------------------|-------|
| Dublin | 90091  | Malahide                  | 501   |
| Dublin | 90093  | Mulhuddart                | 2152  |
| Dublin | 80058  | Oldtown                   | 320   |
| Dublin | 80059  | Portrane                  | 434   |
| Dublin | 90096  | Raheny                    | 2662  |
| Dublin | 90097  | Rathcoole, Saggart & Bald | 7251  |
| Dublin | 80061  | Rush                      | 1204  |
| Dublin | 90099  | Santry                    | 1060  |
| Dublin | 90100  | Santry Demesne            | 2990  |
| Dublin | 80062  | Skerries                  | 354   |
| Dublin | 80063  | Staffordstown Turvey      | 280   |
| Dublin | 90102  | Sutton & Baldoyle         | 3484  |
| Dublin | 90103  | Sutton & Howth North      | 327   |
| Dublin | 80064  | Swords                    | 3030  |
| Dublin | 90104  | Swords (South)            | 3971  |
| Dublin | 80066  | Warbletown                | 150   |
| Galway | 300492 | 1ESB_Ballygaddy           | 363   |
| Galway | 300493 | 1MON_Inchagoill           | 160   |
| Galway | 250399 | Abbey                     | 291   |
| Galway | 310513 | An Chathair               | 187   |
| Galway | 310514 | An Cheathru Rua (Carraroe | 337   |
| Galway | 260451 | Ballinasloe               | 315   |
| Galway | 250409 | Banagher                  | 408   |
| Galway | 310515 | Bearna                    | 300   |
| Galway | 310516 | Both Chunna Thiar         | 330   |
| Galway | 300497 | Claregalway               | 4367  |
| Galway | 290493 | Clarinbridge              | 472   |
| Galway | 320523 | Clifden                   | 200   |
| Galway | 300499 | Corrofin                  | 595   |
| Galway | 290494 | Doorus Demesne            | 343   |
| Galway | 300501 | Dunmore                   | 185   |
| Galway | 300502 | Galway City               | 10169 |
| Galway | 300503 | Headford                  | 695   |
| Galway | 300504 | Inchiquin                 | 250   |
| Galway | 300505 | Inishmicatreer            | 270   |
| Galway | 260463 | Kilconnell                | 150   |
| Galway | 290487 | Kinvarra                  | 228   |
| Galway | 290488 | Knockakilleen & Environs  | 283   |
| Galway | 300507 | Knocknacarra              | 3924  |
| Galway | 310517 | Knocknacarra_Rusheen Bay  | 241   |
| Galway | 300511 | Lackagh More              | 152   |
| Galway | 290489 | Loughrea                  | 643   |
| Galway | 300512 | Montiagh South            | 197   |
| Galway | 310518 | Na Forbacha               | 714   |
| Galway | 310519 | Na Haille                 | 470   |
| Galway | 290490 | Oranmore                  | 1774  |
| Galway | 300508 | Oughterard                | 667   |
| Galway | 250437 | Portumna                  | 504   |
| Galway | 300509 | Rosscahill                | 200   |
| Galway | 290492 | Stradbally South          | 180   |
| Galway | 300510 | Tuam                      | 1757  |
| Kerry  | 210305 | 1MON_Church Island        | 410   |
| Kerry  | 220316 | 1MON_Innisfallen Abbey    | 160   |
| Kerry  | 230341 | Abbeydorney               | 3426  |
| Kerry  | 230342 | Aughacasla                | 552   |
| Kerry  | 230343 | Ballyduff                 | 155   |
| Kerry  | 220317 | Ballyfinnane              | 160   |
| Kerry  | 230344 | Ballyheige                | 887   |

|         |        |                   |       |
|---------|--------|-------------------|-------|
| Kerry   | 240370 | Ballylongford     | 367   |
| Kerry   | 230345 | Banna             | 1093  |
| Kerry   | 220318 | Barraduff         | 210   |
| Kerry   | 220320 | Boolteens         | 410   |
| Kerry   | 220322 | Callanafersy East | 179   |
| Kerry   | 230346 | Carhoonaknock     | 290   |
| Kerry   | 230363 | Carrigaha         | 381   |
| Kerry   | 220323 | Castleisland      | 6186  |
| Kerry   | 220324 | Castlemaine       | 332   |
| Kerry   | 230347 | Cloonprohus       | 382   |
| Kerry   | 220325 | Coolroe Lower     | 310   |
| Kerry   | 220326 | Cordal            | 933   |
| Kerry   | 230348 | Derrymore         | 175   |
| Kerry   | 230349 | Derryquay         | 252   |
| Kerry   | 220327 | Dingle            | 1282  |
| Kerry   | 220328 | Doonimlaghbeg     | 170   |
| Kerry   | 230350 | Dromclough        | 1330  |
| Kerry   | 230351 | Dromroe           | 343   |
| Kerry   | 220329 | Faha West         | 310   |
| Kerry   | 220330 | Farranfore        | 3455  |
| Kerry   | 220331 | Feries            | 270   |
| Kerry   | 230353 | Foildarrig        | 180   |
| Kerry   | 220332 | Garrane West      | 217   |
| Kerry   | 230354 | Garrynagore       | 542   |
| Kerry   | 220333 | Glenbeigh         | 373   |
| Kerry   | 210310 | Gortamullin       | 180   |
| Kerry   | 220334 | Gortatlea         | 212   |
| Kerry   | 220335 | Gortnacarriga     | 2750  |
| Kerry   | 220341 | Gortnalough       | 180   |
| Kerry   | 210312 | Kenmare           | 1065  |
| Kerry   | 230364 | Kilfeighny North  | 157   |
| Kerry   | 220337 | Killarney         | 9187  |
| Kerry   | 220338 | Killorglin        | 1571  |
| Kerry   | 180258 | Knocknaloman      | 280   |
| Kerry   | 230355 | Liscullan         | 174   |
| Kerry   | 230356 | Lisselton         | 1596  |
| Kerry   | 230357 | Listowel          | 1117  |
| Kerry   | 230358 | Lixnaw            | 238   |
| Kerry   | 220339 | Milltown          | 3123  |
| Kerry   | 230359 | Moher             | 344   |
| Kerry   | 220340 | Portmagee         | 576   |
| Kerry   | 240398 | Tarbert           | 153   |
| Kerry   | 210315 | Templenoe         | 345   |
| Kerry   | 230361 | Tralee            | 49376 |
| Kerry   | 230362 | Tullig            | 321   |
| Kildare | 90068  | 1POWER Longstone  | 25000 |
| Kildare | 140147 | Allenwood         | 922   |
| Kildare | 140148 | Allenwood South   | 190   |
| Kildare | 140149 | Ashgrove          | 170   |
| Kildare | 140150 | Athy              | 7113  |
| Kildare | 90073  | Blacktrench       | 270   |
| Kildare | 140153 | Blackwood         | 260   |
| Kildare | 90075  | Carragh           | 152   |
| Kildare | 140156 | Castledermot      | 1563  |
| Kildare | 90076  | Celbridge         | 5654  |
| Kildare | 90078  | Clane             | 6412  |
| Kildare | 90080  | Clonfert South    | 310   |
| Kildare | 70032  | Coologmartin      | 230   |

|          |        |                      |       |
|----------|--------|----------------------|-------|
| Kildare  | 90086  | Johnstown (NE Naas)  | 1890  |
| Kildare  | 90087  | Kill                 | 255   |
| Kildare  | 90089  | Leixlip              | 27157 |
| Kildare  | 90092  | Maynooth             | 2300  |
| Kildare  | 140169 | Mullane Cross Roads  | 230   |
| Kildare  | 90094  | Naas                 | 3364  |
| Kildare  | 90095  | Newbridge            | 2110  |
| Kildare  | 140170 | Old River Bridge     | 394   |
| Kildare  | 140172 | Palatine             | 231   |
| Kildare  | 140175 | Rathangan            | 859   |
| Kildare  | 90098  | Rathmore             | 150   |
| Kildare  | 90101  | Straffan             | 154   |
| Kildare  | 140178 | Suncroft             | 315   |
| Kildare  | 90105  | Turnings             | 463   |
| Kilkenny | 150181 | Ballyhale            | 248   |
| Kilkenny | 150182 | Ballyragget          | 304   |
| Kilkenny | 150185 | Callan               | 209   |
| Kilkenny | 150187 | Castleblunden        | 165   |
| Kilkenny | 150188 | Castlecomer          | 183   |
| Kilkenny | 150190 | Freshford            | 8192  |
| Kilkenny | 150191 | Glenmore             | 200   |
| Kilkenny | 140162 | Graiguenamanagh      | 1271  |
| Kilkenny | 150192 | Inistioge            | 587   |
| Kilkenny | 150204 | Kells                | 291   |
| Kilkenny | 150194 | Kilkenny - Nore      | 2840  |
| Kilkenny | 150195 | Kilkenny-Breagagh    | 246   |
| Kilkenny | 150197 | Kylenaskeagh         | 180   |
| Kilkenny | 150205 | Moatpark             | 300   |
| Kilkenny | 160232 | Mullinavat           | 402   |
| Kilkenny | 160234 | Owning               | 840   |
| Kilkenny | 160235 | Piltown              | 299   |
| Kilkenny | 160237 | Strangsmill          | 320   |
| Kilkenny | 150201 | Thomastown           | 793   |
| Kilkenny | 150202 | Threecastles         | 320   |
| Kilkenny | 150203 | Tullaroan            | 210   |
| Kilkenny | 160242 | Waterford            | 16793 |
| Laois    | 150183 | Ballyroan            | 1460  |
| Laois    | 140152 | Barnashrone          | 260   |
| Laois    | 150184 | Bowe's Cross Roads   | 260   |
| Laois    | 140154 | Camcloon             | 241   |
| Laois    | 150186 | Camross              | 340   |
| Laois    | 250416 | Castlecuffe          | 150   |
| Laois    | 140157 | Clogrenan Bridge     | 164   |
| Laois    | 140158 | Clonaheen            | 201   |
| Laois    | 250420 | Clonshee             | 935   |
| Laois    | 140164 | Killeen              | 198   |
| Laois    | 140165 | Killeshin            | 500   |
| Laois    | 140180 | Kilvahan             | 210   |
| Laois    | 140167 | Monasterevin         | 1446  |
| Laois    | 140168 | Mountmellick         | 7951  |
| Laois    | 150198 | Mountrath            | 342   |
| Laois    | 150199 | Oldtown              | 450   |
| Laois    | 140173 | Portarlington        | 1960  |
| Laois    | 140174 | Portlaoise           | 10581 |
| Laois    | 150200 | Rathdowney           | 660   |
| Laois    | 140176 | Ratheven & Ballyroan | 848   |
| Laois    | 140177 | Stradbally           | 184   |
| Laois    | 140179 | Timahoe              | 262   |

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|----------|--------|---------------------------|------|
| Leitrim  | 360567 | Ballinamore               | 1100 |
| Leitrim  | 350546 | Ballymore                 | 180  |
| Leitrim  | 260455 | Carrickonshannon          | 1435 |
| Leitrim  | 260459 | Drumshanbo                | 506  |
| Leitrim  | 350556 | Largydonnell              | 270  |
| Leitrim  | 350557 | Manorhamilton             | 412  |
| Leitrim  | 260466 | Mohill                    | 720  |
| Leitrim  | 350562 | Sraud                     | 231  |
| Limerick | 250404 | Abington                  | 191  |
| Limerick | 240364 | Adare                     | 2453 |
| Limerick | 240365 | Askeaton                  | 1034 |
| Limerick | 240367 | Ballinlongig/Dromcolliher | 751  |
| Limerick | 240368 | Ballydaly                 | 152  |
| Limerick | 240369 | Ballyfooken               | 161  |
| Limerick | 240371 | Boherygeela               | 173  |
| Limerick | 240372 | Breesheen                 | 797  |
| Limerick | 250413 | Caherconlish              | 1320 |
| Limerick | 240373 | Camas                     | 182  |
| Limerick | 250415 | Cappamore                 | 769  |
| Limerick | 250417 | Castletroy                | 4417 |
| Limerick | 240376 | Charleville1              | 705  |
| Limerick | 240377 | Clarina                   | 3275 |
| Limerick | 240378 | Coarliss                  | 150  |
| Limerick | 240379 | Coolygorman               | 160  |
| Limerick | 240380 | Croagh                    | 160  |
| Limerick | 240381 | Croom                     | 835  |
| Limerick | 240382 | Feohanagh                 | 250  |
| Limerick | 240383 | Foynes                    | 5632 |
| Limerick | 160220 | Galbally                  | 1185 |
| Limerick | 250424 | Garryglass                | 876  |
| Limerick | 240399 | Gotoon                    | 220  |
| Limerick | 240384 | Hospital                  | 172  |
| Limerick | 180255 | Kilbeheny                 | 542  |
| Limerick | 240385 | Kildimo New               | 1457 |
| Limerick | 240386 | Killacolla                | 2520 |
| Limerick | 240387 | Killaghteen               | 350  |
| Limerick | 240388 | Kilmallock                | 603  |
| Limerick | 160228 | Lyre                      | 172  |
| Limerick | 240389 | Michelstowndown           | 2933 |
| Limerick | 240390 | Monaster                  | 235  |
| Limerick | 240391 | Mountcoote                | 396  |
| Limerick | 240392 | Newcastle West            | 4781 |
| Limerick | 250435 | Pallas Green New          | 330  |
| Limerick | 240393 | Patrickswell              | 276  |
| Limerick | 240394 | Rathkeale                 | 2372 |
| Limerick | 240395 | Shanagolden               | 170  |
| Limerick | 240396 | Strand                    | 311  |
| Limerick | 240397 | Tankardstown              | 230  |
| Longford | 260444 | 1ESB Lanesbrough          | 2654 |
| Longford | 260446 | Abbeyshrule               | 402  |
| Longford | 260447 | Aghaboy                   | 470  |
| Longford | 260473 | Ballinalee                | 150  |
| Longford | 260453 | Ballymahon                | 200  |
| Longford | 260457 | Drumlisk                  | 150  |
| Longford | 260460 | Edgeworthstown            | 638  |
| Longford | 260462 | Inchcleraun               | 150  |
| Longford | 260464 | Longford                  | 1743 |
| Louth    | 60013  | Annagassan                | 517  |

|          |        |                           |       |
|----------|--------|---------------------------|-------|
| Louth    | 60014  | Ardee                     | 2418  |
| Louth    | 60015  | Blackrock South           | 252   |
| Louth    | 60016  | Carlingford & Greenore    | 2889  |
| Louth    | 70033  | Drogheda                  | 6593  |
| Louth    | 60019  | Dundalk                   | 52831 |
| Louth    | 60020  | Inishkeen                 | 203   |
| Louth    | 60022  | Milltown, Near Termonfeck | 150   |
| Louth    | 60023  | Rathcor, Cooley           | 150   |
| Louth    | 60024  | Termonfeckin              | 342   |
| Louth    | 70043  | Tullyallen                | 372   |
| Mayo     | 340531 | 1SCH Carha                | 270   |
| Mayo     | 300494 | 1SCH Clogher              | 300   |
| Mayo     | 320522 | 1SCH Cloondaff            | 280   |
| Mayo     | 340532 | 1SCH Kildaree             | 293   |
| Mayo     | 340546 | Abbeylands                | 300   |
| Mayo     | 340533 | Balla                     | 200   |
| Mayo     | 340534 | Ballina & Environs        | 5931  |
| Mayo     | 999999 | Ballina & Environs        | 421   |
| Mayo     | 300495 | Ballinrobe                | 1254  |
| Mayo     | 300496 | Ballyhaunis               | 467   |
| Mayo     | 340535 | Ballynasrahy & Environs   | 420   |
| Mayo     | 340537 | Bunnyconnellan            | 300   |
| Mayo     | 340538 | Castlebar                 | 3485  |
| Mayo     | 340540 | Corroy                    | 160   |
| Mayo     | 340541 | Crossmolina               | 178   |
| Mayo     | 300500 | Derrindaffderg            | 166   |
| Mayo     | 340542 | Foxford                   | 3069  |
| Mayo     | 300506 | Kilmaine                  | 150   |
| Mayo     | 320526 | Louisburgh                | 287   |
| Mayo     | 340543 | Swinford                  | 1005  |
| Mayo     | 320527 | Westport                  | 1617  |
| Mayo     | 320528 | Westport Bay              | 342   |
| Mayo     | 320529 | Westport Quay             | 914   |
| Meath    | 70025  | 1ESB Grangeageeth         | 2550  |
| Meath    | 70026  | 1ESB Randalstown          | 2500  |
| Meath    | 80049  | 1SCH Kilbride             | 265   |
| Meath    | 80052  | Ashbourne                 | 474   |
| Meath    | 70028  | Athboy                    | 293   |
| Meath    | 70029  | Ballivor                  | 940   |
| Meath    | 70031  | Bettystown                | 4834  |
| Meath    | 90079  | Clonee                    | 295   |
| Meath    | 60018  | Coole Bog, Ardee          | 192   |
| Meath    | 80054  | Coolquoy                  | 164   |
| Meath    | 80056  | Duleek                    | 3241  |
| Meath    | 90083  | Dunboyne                  | 2584  |
| Meath    | 80067  | Gormanston                | 170   |
| Meath    | 70035  | Johnstown Bridge          | 390   |
| Meath    | 70036  | Kildalkey                 | 157   |
| Meath    | 60021  | Kilmainhamwood            | 160   |
| Meath    | 70037  | Kilmessan                 | 405   |
| Meath    | 260465 | Millbrook                 | 160   |
| Meath    | 70039  | Navan                     | 3670  |
| Meath    | 80060  | Ratoath                   | 2384  |
| Meath    | 70041  | Trim                      | 653   |
| Meath    | 70045  | Wilkinstown               | 221   |
| Monaghan | 30009  | Bellanode Northeast       | 156   |
| Monaghan | 60017  | Carrickmacross            | 702   |
| Monaghan | 30010  | Drumgoole                 | 280   |

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|-----------|--------|---------------------------|-------|
| Monaghan  | 30013  | Drumhirk                  | 151   |
| Monaghan  | 360573 | Laragh                    | 150   |
| Monaghan  | 30011  | Monaghan                  | 1615  |
| Monaghan  | 360575 | Mullanacloy               | 270   |
| Monaghan  | 360576 | Scotshouse                | 190   |
| Monaghan  | 360577 | Smithborough              | 220   |
| Monaghan  | 30012  | Three Mile House          | 160   |
| Offaly    | 250400 | 1ESB_Shannonbridge        | 716   |
| Offaly    | 250403 | 1SCH_Limcloon             | 360   |
| Offaly    | 250410 | Birr                      | 4754  |
| Offaly    | 250418 | Clara                     | 585   |
| Offaly    | 250421 | Crinkill                  | 220   |
| Offaly    | 140159 | Daingean                  | 2126  |
| Offaly    | 250429 | Lisdermot                 | 190   |
| Offaly    | 250430 | Mucklagh                  | 350   |
| Offaly    | 250436 | Pollagh                   | 343   |
| Offaly    | 250438 | Rahan                     | 387   |
| Offaly    | 250441 | Timeighter                | 171   |
| Offaly    | 250443 | Tullamore                 | 20256 |
| Roscommon | 260445 | 1MON_Lough Gara           | 1556  |
| Roscommon | 260472 | Athleague                 | 155   |
| Roscommon | 260450 | Ballaghaderreen 2 Of 2    | 280   |
| Roscommon | 260454 | Boyle                     | 1018  |
| Roscommon | 260474 | Cashelsharkett            | 280   |
| Roscommon | 260456 | Castlerea                 | 551   |
| Roscommon | 300498 | Cloonfad                  | 178   |
| Roscommon | 260471 | Cootehall                 | 182   |
| Roscommon | 260458 | Drumlosh                  | 170   |
| Roscommon | 260461 | Elphin                    | 200   |
| Roscommon | 260470 | Portnacrinnaght           | 153   |
| Roscommon | 260467 | Roosky                    | 230   |
| Roscommon | 260468 | Roscommon                 | 1583  |
| Sligo     | 350545 | 1SCH_Sooey                | 280   |
| Sligo     | 350565 | Ballygilcash              | 156   |
| Sligo     | 350547 | Ballymote                 | 1160  |
| Sligo     | 350548 | Ballysadare&Environs      | 581   |
| Sligo     | 340539 | Charlestown               | 1302  |
| Sligo     | 350549 | Collooney                 | 641   |
| Sligo     | 350550 | Coolaney                  | 303   |
| Sligo     | 350551 | Drumard                   | 630   |
| Sligo     | 350552 | Drumcliff & Carney        | 1061  |
| Sligo     | 350553 | Finned                    | 184   |
| Sligo     | 350554 | Gorteen                   | 660   |
| Sligo     | 350555 | Grange                    | 904   |
| Sligo     | 350558 | Rathbraghan_Sligo Town    | 514   |
| Sligo     | 350559 | Riverstown                | 276   |
| Sligo     | 350561 | Sligo Town                | 5824  |
| Sligo     | 340544 | Tobercurry                | 710   |
| Sligo     | 350564 | Willowbrock & Environs    | 288   |
| Tipperary | 150180 | 1NUR_Curracunneen Bridge  | 2510  |
| Tipperary | 160204 | 1NUR_Dundrum_Boherboy     | 2540  |
| Tipperary | 160205 | Ardfinnan                 | 169   |
| Tipperary | 160206 | Ballinaclogh              | 420   |
| Tipperary | 250406 | Ballycommon & Ballyartell | 151   |
| Tipperary | 250407 | Ballymackeogh             | 198   |
| Tipperary | 160207 | Ballypatrick              | 220   |
| Tipperary | 160208 | Ballyporeen               | 151   |
| Tipperary | 250408 | Ballyvaughan              | 190   |

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|-----------|--------|-----------------------|-------|
| Tipperary | 160209 | Bansha                | 157   |
| Tipperary | 250411 | Borrisokane           | 406   |
| Tipperary | 160210 | Borrisoleigh          | 782   |
| Tipperary | 160211 | Caher                 | 680   |
| Tipperary | 250414 | Cappagh White         | 210   |
| Tipperary | 160212 | Carrick-On-Suir       | 2578  |
| Tipperary | 250445 | Castlelough           | 152   |
| Tipperary | 160213 | Clogheen              | 28286 |
| Tipperary | 250419 | CloghJordan           | 150   |
| Tipperary | 160214 | Clondarby             | 252   |
| Tipperary | 160215 | Cloneen               | 190   |
| Tipperary | 160216 | Clonmel               | 13423 |
| Tipperary | 160217 | Clonmore South        | 280   |
| Tipperary | 250447 | Cunnahurt             | 300   |
| Tipperary | 160218 | Curraghadobbin        | 233   |
| Tipperary | 150189 | Derrymore-Roscrea     | 150   |
| Tipperary | 250422 | Dolia                 | 420   |
| Tipperary | 250446 | Dromineer             | 281   |
| Tipperary | 240400 | Drumcomoge            | 160   |
| Tipperary | 160219 | Fethard               | 358   |
| Tipperary | 160221 | Golden                | 216   |
| Tipperary | 160222 | Goldings Cross        | 211   |
| Tipperary | 160223 | Gortacullin           | 200   |
| Tipperary | 250444 | Greenhills            | 190   |
| Tipperary | 160224 | Hollyford             | 460   |
| Tipperary | 150193 | Islands - Kings River | 150   |
| Tipperary | 160225 | Kilfithmone           | 170   |
| Tipperary | 250427 | Killaloe              | 2167  |
| Tipperary | 160226 | Killurney             | 180   |
| Tipperary | 160227 | Knockbrit             | 201   |
| Tipperary | 150196 | Knockulty             | 170   |
| Tipperary | 250428 | Limerick Junction     | 241   |
| Tipperary | 160229 | Mackanagh             | 150   |
| Tipperary | 160230 | Marlfield             | 277   |
| Tipperary | 160231 | Mullinahone           | 257   |
| Tipperary | 250432 | Nenagh                | 7450  |
| Tipperary | 160233 | Newcastle West        | 283   |
| Tipperary | 250433 | Newport               | 337   |
| Tipperary | 160236 | Rathkea               | 840   |
| Tipperary | 250440 | Roscrea               | 1073  |
| Tipperary | 160238 | Templemore            | 612   |
| Tipperary | 260469 | Terryglass            | 260   |
| Tipperary | 160239 | Thurles               | 807   |
| Tipperary | 160240 | Tipperary Town        | 299   |
| Tipperary | 250442 | Toomyvara             | 163   |
| Waterford | 180247 | Aglish                | 355   |
| Waterford | 180248 | Ballyduff             | 618   |
| Waterford | 170243 | Ballynacourty         | 236   |
| Waterford | 180249 | Cappoquin             | 179   |
| Waterford | 180251 | Clashmore             | 191   |
| Waterford | 170244 | Dungarvan             | 1627  |
| Waterford | 170245 | Dunmore East          | 415   |
| Waterford | 180257 | Kilmolash             | 220   |
| Waterford | 180260 | Lismore               | 165   |
| Waterford | 170246 | Ringphuca             | 500   |
| Waterford | 180266 | Tallow                | 493   |
| Waterford | 180267 | Youghal               | 1542  |
| Westmeath | 70027  | 1SCH_Milltownpass     | 291   |

|           |        |                           |       |
|-----------|--------|---------------------------|-------|
| Westmeath | 260448 | Athlone                   | 8141  |
| Westmeath | 70034  | Earlsmeadow               | 220   |
| Westmeath | 250425 | Incacrone                 | 152   |
| Westmeath | 250426 | Kilbeggan                 | 808   |
| Westmeath | 250431 | Mullingar                 | 590   |
| Wexford   | 120129 | Ballaghkeen               | 180   |
| Wexford   | 120130 | Ballyhire - St Helens     | 760   |
| Wexford   | 110125 | Blackwater                | 240   |
| Wexford   | 130143 | Bridgetown                | 277   |
| Wexford   | 120134 | Carricklawn-Wexford       | 170   |
| Wexford   | 120135 | Clonard                   | 310   |
| Wexford   | 110126 | Courtown                  | 771   |
| Wexford   | 120136 | Craanford                 | 150   |
| Wexford   | 120143 | Curraclloe                | 279   |
| Wexford   | 130144 | Duncormick                | 194   |
| Wexford   | 120137 | Enniscorthy               | 2783  |
| Wexford   | 120138 | Fairfield & Cherryorchard | 561   |
| Wexford   | 110128 | Fortchester Lower         | 150   |
| Wexford   | 130145 | Foulkesmill               | 160   |
| Wexford   | 110127 | Gorey                     | 1154  |
| Wexford   | 120139 | Hodgesmill                | 210   |
| Wexford   | 120140 | Kellystown                | 177   |
| Wexford   | 130146 | Kilmore                   | 4447  |
| Wexford   | 120144 | Rosslare                  | 417   |
| Wexford   | 120142 | Wexford                   | 5551  |
| Wicklow   | 100106 | 1ESB_Shelton Abbey        | 2587  |
| Wicklow   | 120128 | 1ESB_Shillelagh           | 2593  |
| Wicklow   | 100107 | 1MON_Glendalough          | 753   |
| Wicklow   | 90069  | 1POWER_Pollaphuca         | 25000 |
| Wicklow   | 100108 | Annacurragh               | 630   |
| Wicklow   | 100109 | Arklow                    | 3454  |
| Wicklow   | 100110 | Ashford & Rathnew         | 1442  |
| Wicklow   | 100111 | Aughrim                   | 466   |
| Wicklow   | 100112 | Avoca                     | 413   |
| Wicklow   | 100113 | Balliaclash               | 161   |
| Wicklow   | 120132 | Baltinglass               | 1069  |
| Wicklow   | 90074  | Blessington               | 1220  |
| Wicklow   | 100116 | Enniskerry                | 380   |
| Wicklow   | 140163 | Grange Con                | 170   |
| Wicklow   | 100117 | Greystones/Charlesland    | 1180  |
| Wicklow   | 90085  | Hollywood                 | 471   |
| Wicklow   | 100118 | Kilcoole                  | 3406  |
| Wicklow   | 100119 | Killiskey                 | 152   |
| Wicklow   | 100120 | Kilmacanoge               | 160   |
| Wicklow   | 100122 | Newcastle                 | 586   |
| Wicklow   | 100123 | Rathdrum                  | 197   |
| Wicklow   | 100124 | Wicklow                   | 824   |

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## **E.2. PREDICTIVE ANALYSIS OUTCOMES FOR GROUNDWATER FLOOD RISK**

The locations where the predictive Flood Risk Index is greater than 50 based on groundwater flooding are set out below. The process for the determination of the Flood Risk Index is described in Section 4.4 of the main body of the report.

| <b>County</b> | <b>Location</b>          | <b>Flood Risk Index</b> | <b>Comment</b>         |
|---------------|--------------------------|-------------------------|------------------------|
| Galway        | Galway City and Suburbs  | 1734                    |                        |
| Galway        | Kilcornan/Rohvehagh      | 401                     | Health Service at Risk |
| Galway        | Derryfrench              | 328                     | Utility at Risk        |
| Galway        | Moneyteige/Cahercrin     | 114                     |                        |
| Galway        | Bredagh/Balrobuck Beg    | 110                     |                        |
| Clare         | Kilmacduagh              | 105                     | Monuments at Risk      |
| Galway        | Tonroe (Ed Clarinbridge) | 62                      |                        |
| Galway        | Turloughrevagh           | 60                      |                        |
| Galway        | Ringeelaun               | 53                      |                        |

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### E.3. PREDICTIVE ANALYSIS OUTCOMES FOR PLUVIAL FLOOD RISK

The locations where the predictive Flood Risk Index is greater than 150 based on pluvial flooding are set out below. The process for the determination of the Flood Risk Index is described in Section 4.4 of the main body of the report.

| County    | Location             | Flood Risk Index | Comment                                         |
|-----------|----------------------|------------------|-------------------------------------------------|
| Clare     | Ennistimon           | 2508             | Health service at risk, with limited other risk |
| Cork      | Bishopstown West     | 174              |                                                 |
| Cork      | Carrigtohill         | 205              |                                                 |
| Cork      | Castletown Bearhaven | 453              |                                                 |
| Cork      | Classes              | 253              | Utility asset at risk, with limited other risk  |
| Cork      | Cork City            | 2418             |                                                 |
| Cork      | Cork City West       | 333              |                                                 |
| Cork      | Kildorrery           | 503              | Health service at risk, with limited other risk |
| Cork      | Kinsale              | 215              |                                                 |
| Cork      | Little Island        | 250              | Utility asset at risk, with limited other risk  |
| Cork      | Shanakill lower      | 258              | Utility asset at risk, with limited other risk  |
| Dublin    | Carrickmines         | 633              |                                                 |
| Dublin    | Clontarf             | 247              |                                                 |
| Dublin    | Donaghmede           | 151              |                                                 |
| Dublin    | Dublin City          | 11735            |                                                 |
| Dublin    | Dunsink Observatory  | 251              | Utility asset at risk, with limited other risk  |
| Dublin    | Killiney             | 818              |                                                 |
| Dublin    | Loughlinstown        | 155              |                                                 |
| Dublin    | Northwest Dublin     | 805              |                                                 |
| Dublin    | Rush                 | 151              |                                                 |
| Dublin    | South Dublin         | 1481             |                                                 |
| Dublin    | Sutton               | 504              |                                                 |
| Dublin    | Tallaght             | 1295             |                                                 |
| Galway    | Derryfrench          | 834              | Utility asset at risk, with limited other risk  |
| Galway    | Doughiska            | 209              |                                                 |
| Galway    | Galway City          | 278              |                                                 |
| Galway    | Peak                 | 256              | Health service at risk, with limited other risk |
| Kerry     | Killarney            | 155              |                                                 |
| Kerry     | Trienearagh          | 833              | Utility asset at risk, with limited other risk  |
| Kildare   | Clane                | 348              | Health service at risk, with limited other risk |
| Kildare   | East Naas            | 251              | Utility asset at risk, with limited other risk  |
| Kildare   | Maynooth             | 181              |                                                 |
| Kildare   | Naas/Sallins         | 661              |                                                 |
| Kilkenny  | Kilkenny - Nore      | 261              |                                                 |
| Leitrim   | Manorhamilton        | 843              | Health service at risk, with limited other risk |
| Limerick  | Limerick City        | 266              |                                                 |
| Limerick  | Limerick City SW     | 234              |                                                 |
| Longford  | Longford             | 179              |                                                 |
| Louth     | Drogheda             | 168              |                                                 |
| Louth     | Grange               | 853              | Utility asset at risk, with limited other risk  |
| Meath     | Mountainpole         | 835              | Utility asset at risk, with limited other risk  |
| Offaly    | Coolcor              | 250              | Utility asset at risk, with limited other risk  |
| Roscommon | Roscommon East       | 268              | Health service at risk, with limited other risk |
| Tipperary | Caher                | 332              | Health service at risk, with limited other risk |
| Waterford | Waterford City       | 381              |                                                 |
| Wicklow   | Bray South           | 310              |                                                 |

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#### E.4. PREDICTIVE ANALYSIS OUTCOMES FOR ENVIRONMENTALLY DESIGNATED SITES

The process for the determination of the Flood Risk Index is described in Section 4.4 of the main body of the report.

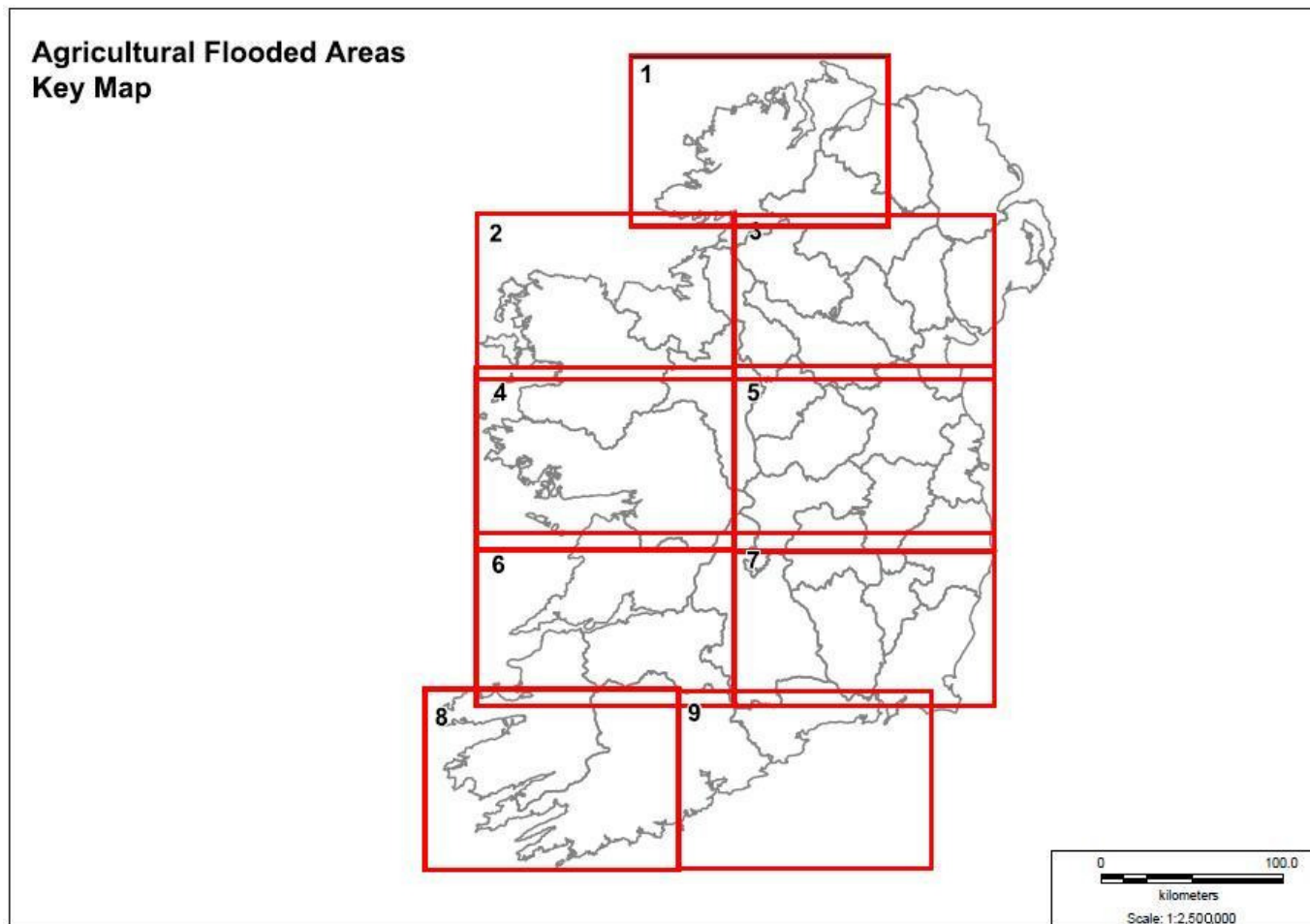
| Site Code | Site Name                                  | Designation | Flood Risk Index | Extreme Vulnerability Species            | High Vulnerability Species                                                                                              |
|-----------|--------------------------------------------|-------------|------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 335       | Ballinskelligs Bay And Inny Estuary        | SAC         | 830.4            | Petalwort                                |                                                                                                                         |
| 2246      | Ballycullinan, Old Domestic Building       | SAC         | 281.1            | Lesser horseshoe bat                     |                                                                                                                         |
| 1975      | Ballyhoorisky Point To Fanad Head          | SAC         | 190.5            | Narrow-mouthed whorl snail               |                                                                                                                         |
| 1090      | Ballyness Bay                              | SAC         | 745.4            | Geyer's whorl snail                      | Fixed coastal dunes with herbaceous vegetation (grey dunes)                                                             |
| 622       | Ballysadare Bay                            | SAC         | 1450.3           | Narrow-mouthed whorl snail               | Fixed coastal dunes with herbaceous vegetation (grey dunes)                                                             |
| 2170      | Blackwater River (Cork/Waterford)          | SAC         | 1092.3           | Taxus baccata woods of the British Isles | Freshwater pearl mussel                                                                                                 |
| 625       | Bunduff Lough And Machair / Trawalua/Mulla | SAC         | 281.2            | Petalwort                                | Fixed coastal dunes with herbaceous vegetation (grey dunes)                                                             |
| 597       | Carrowbehy/Caher Bog                       | SAC         | 159.8            | Marsh Fritillary                         |                                                                                                                         |
| 2250      | Carrowmore Dunes                           | SAC         | 1139.4           | Narrow-mouthed whorl snail               | Fixed coastal dunes with herbaceous vegetation (grey dunes)                                                             |
| 343       | Castlemaine Harbour                        | SAC         | 1020.7           | Petalwort                                | Fixed coastal dunes with herbaceous vegetation (grey dunes)                                                             |
| 1482      | Clew Bay Complex                           | SAC         | 388.3            | Geyer's whorl snail                      |                                                                                                                         |
| 859       | Clonaslee Eskers And Derry Bog             | SAC         | 158.9            | Geyer's whorl snail                      | Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(*important orchid sites) |
| 627       | Cummeen Strand / Drumcliff Bay (Sligo Bay) | SAC         | 438.0            | Narrow-mouthed whorl snail               | Juniperus communis formations on heaths or calcareous grasslands                                                        |
| 30        | Danes Hole, Poulnalecka                    | SAC         | 517.1            | Lesser horseshoe bat                     | Old sessile oak woods with Ilex and Blechnum in British Isles                                                           |

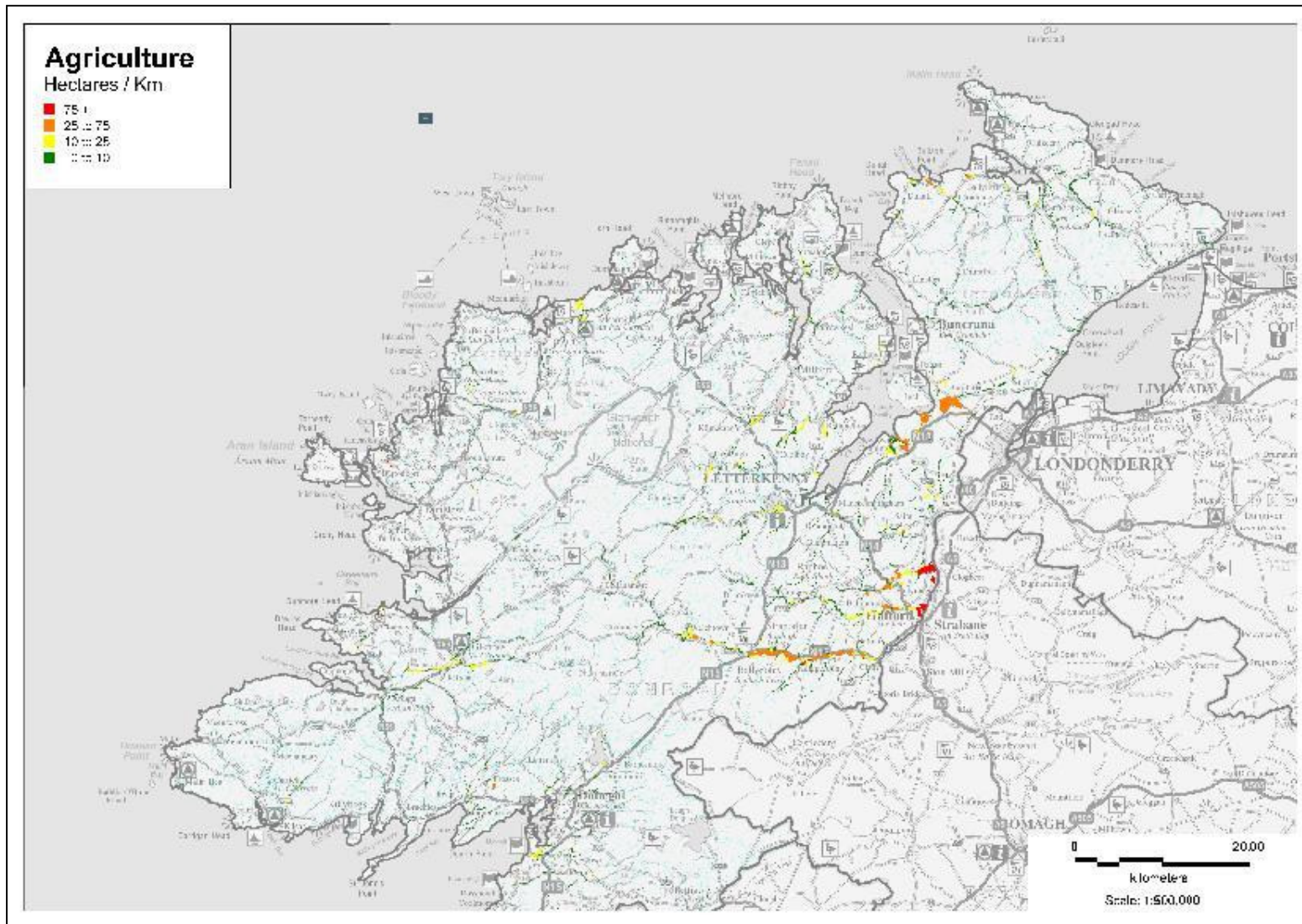
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|------|-------------------------------------|-----|--------|------------------------------------------|---------------------------------------------------------------|
| 32   | Dromore Woods And Loughs            | SAC | 297.5  | Lesser horseshoe bat                     | Limestone pavements                                           |
| 2315 | Glanlough Woods                     | SAC | 272.5  | Lesser horseshoe bat                     |                                                               |
| 90   | Glengarriff Harbour And Woodland    | SAC | 243.8  | Lesser horseshoe bat                     | Old sessile oak woods with Ilex and Blechnum in British Isles |
| 1141 | Gweedore Bay And Islands            | SAC | 243.7  | Petalwort                                | Dunes                                                         |
| 36   | Inagh River Estuary                 | SAC | 188.0  |                                          | Fixed coastal dunes with herbaceous vegetation (grey dunes)   |
| 364  | Kilgarvan Ice House                 | SAC | 220.3  | Lesser horseshoe bat                     |                                                               |
| 458  | Killala Bay / Moy Estuary           | SAC | 319.0  | Narrow-mouthed whorl snail               | Fixed coastal dunes with herbaceous vegetation (grey dunes)   |
| 4069 | Lambay Island SPA                   | SPA | 422.3  | Herring Gull                             | Cormorant, Lesser Black-backed Gull                           |
| 2147 | Lisduff Fen                         | SAC | 951.2  | Geyer's whorl snail                      |                                                               |
| 297  | Lough Corrib                        | SAC | 307.6  | Lesser horseshoe bat                     | Limestone pavements                                           |
| 2137 | Lower River Suir                    | SAC | 1304.5 | Taxus baccata woods of the British Isles | Old sessile oak woods with Ilex and Blechnum in British Isles |
| 4096 | Middle Shannon Callows SPA          | SPA | 999.9  | Corncrake                                |                                                               |
| 57   | Moyree River System                 | SAC | 239.7  | Lesser horseshoe bat                     | Limestone pavements                                           |
| 470  | Mullet / Blacksod Bay Complex       | SAC | 285.6  | Petalwort                                | Atlantic decalcified fixed dunes (Calluno-Ulicetea)           |
| 2129 | Murvey Machair                      | SAC | 220.9  | Petalwort                                |                                                               |
| 206  | North Dublin Bay                    | SAC | 1120.3 | Petalwort                                | Fixed coastal dunes with herbaceous vegetation (grey dunes)   |
| 353  | Old Domestic Building, Dromore Wood | SAC | 1607.1 | Lesser horseshoe bat                     |                                                               |
| 2314 | Old Domestic Buildings, Rylane      | SAC | 605.8  | Lesser horseshoe bat                     |                                                               |
| 396  | Pollardstown Fen                    | SAC | 1067.4 | Narrow-mouthed whorl snail               | Desmoulin's Whorl Snail                                       |
| 2316 | Ratty River Cave                    | SAC | 1719.6 | Lesser horseshoe bat                     |                                                               |

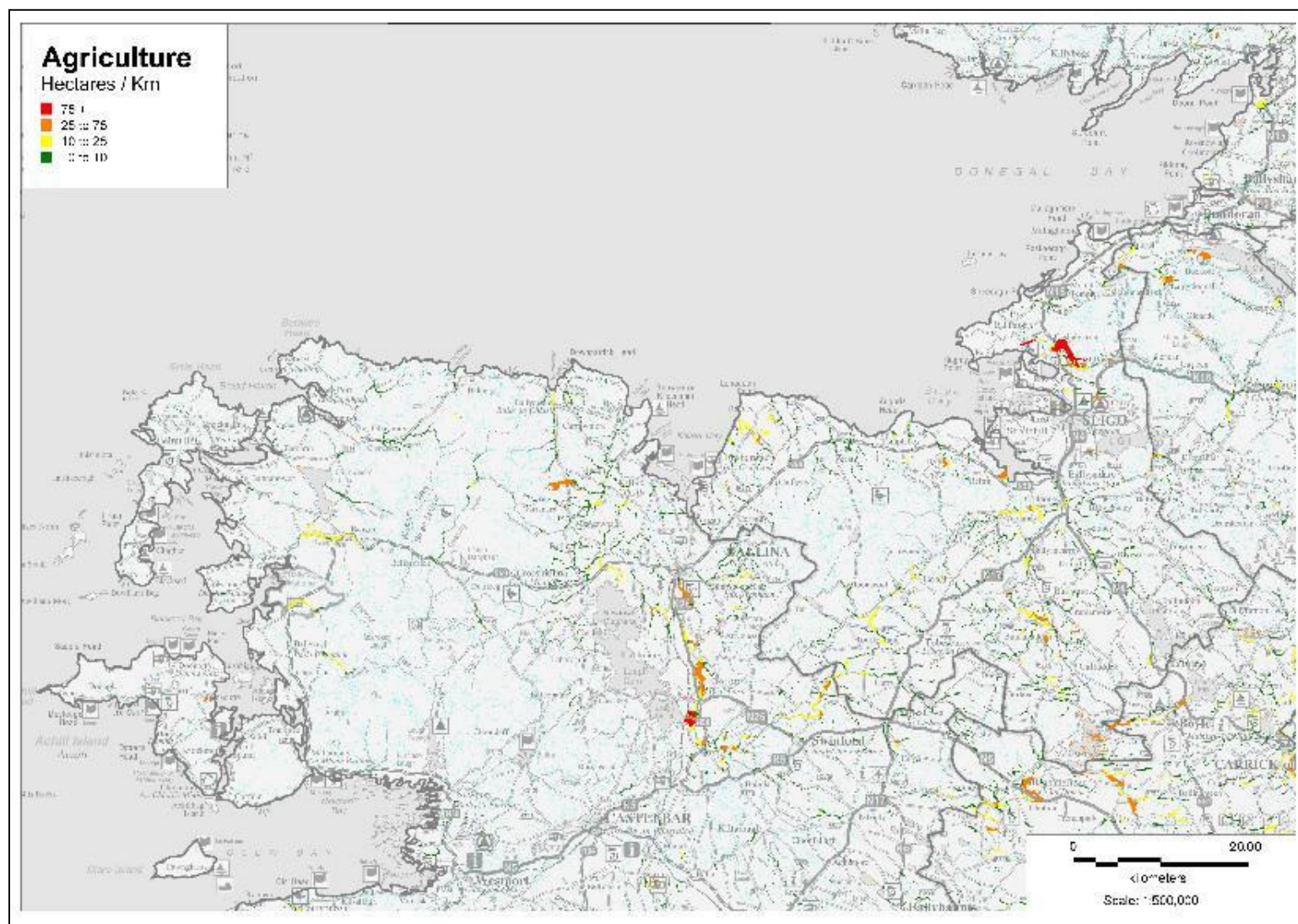
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|------|------------------------------------------|-----|--------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 216  | River Shannon Callows                    | SAC | 199.3  |                            | Limestone pavements                                                                                                                                                                       |
| 208  | Rogerstown Estuary                       | SAC | 165.7  |                            | Fixed coastal dunes with herbaceous vegetation (grey dunes)                                                                                                                               |
| 1398 | Rye Water Valley / Carton                | SAC | 1092.2 | Narrow-mouthed whorl snail | Desmoulin's Whorl Snail                                                                                                                                                                   |
| 2074 | Slyne Head Peninsula                     | SAC | 154.6  | Petalwort                  | Juniperus communis formations on heaths or calcareous grasslands, Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia)(*important orchid sites) |
| 1680 | Streedagh Point Dunes                    | SAC | 556.6  | Narrow-mouthed whorl snail | Fixed coastal dunes with herbaceous vegetation (grey dunes)                                                                                                                               |
| 4093 | Termoncarragh Lake And Annagh Machair SP | SPA | 1334.0 | Corncrake                  | Dunlin, Lapwing, Snipe                                                                                                                                                                    |
| 2247 | Toonagh Estate                           | SAC | 196.2  | Lesser horseshoe bat       |                                                                                                                                                                                           |
| 4073 | Tory Island SPA                          | SPA | 1457.8 | Corncrake                  |                                                                                                                                                                                           |
| 2179 | Towerhill House                          | SAC | 1201.2 | Lesser horseshoe bat       |                                                                                                                                                                                           |
| 2070 | Tralee Bay And Magharees Peninsula, West | SAC | 1180.4 | Petalwort                  |                                                                                                                                                                                           |

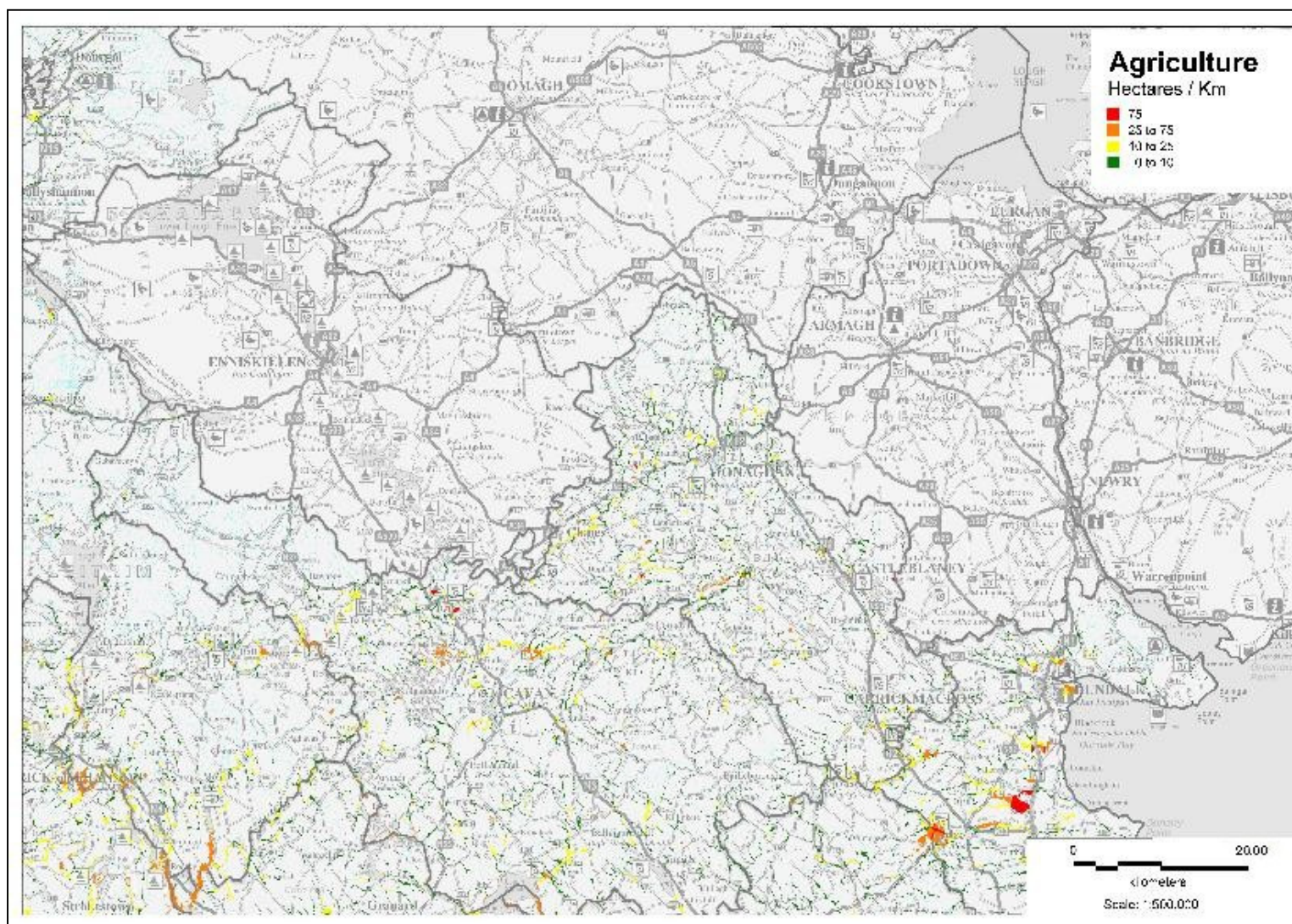
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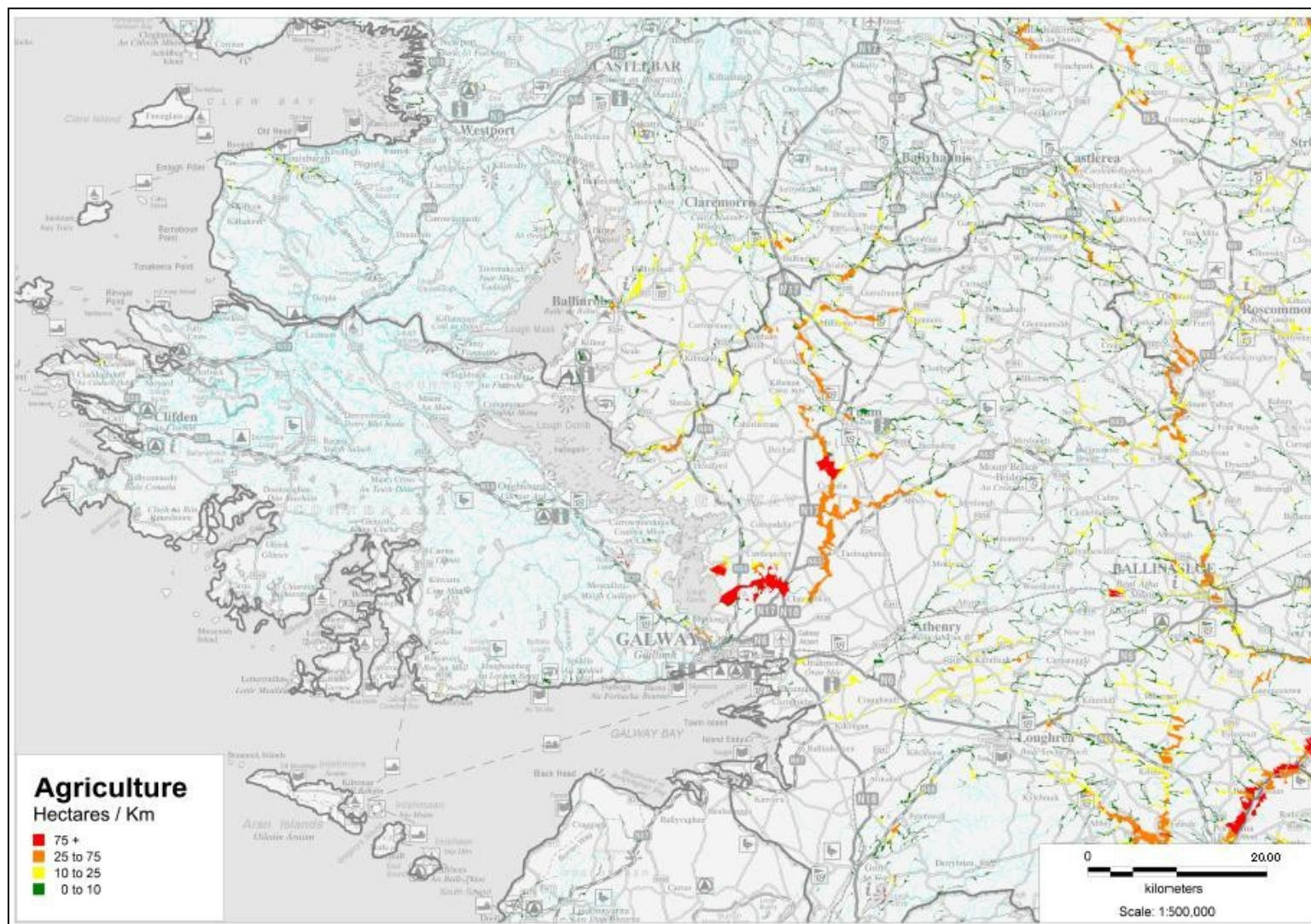
## E.5. MAPS OF PREDICTIVE AGRICULTURAL FLOOD RISK

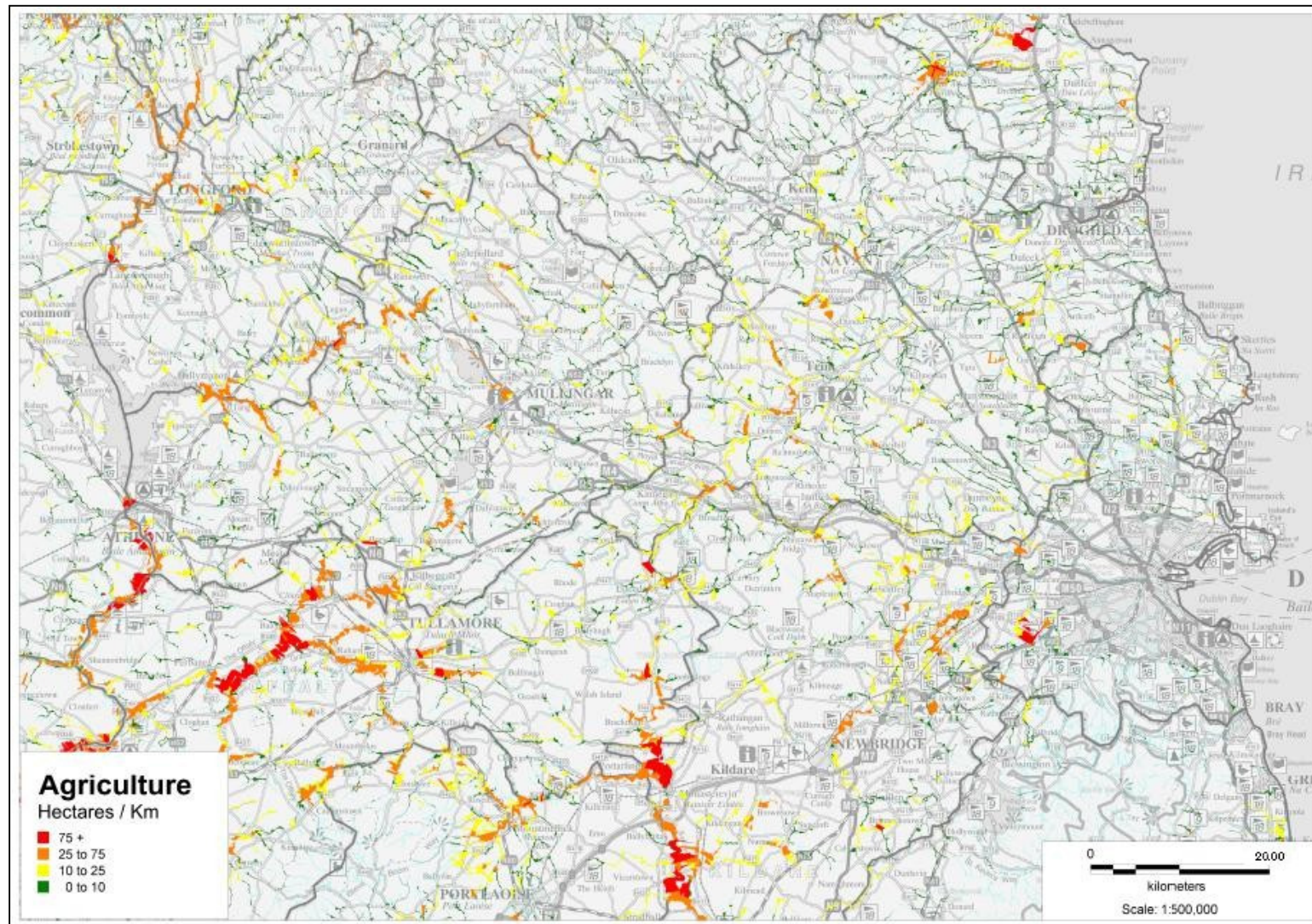


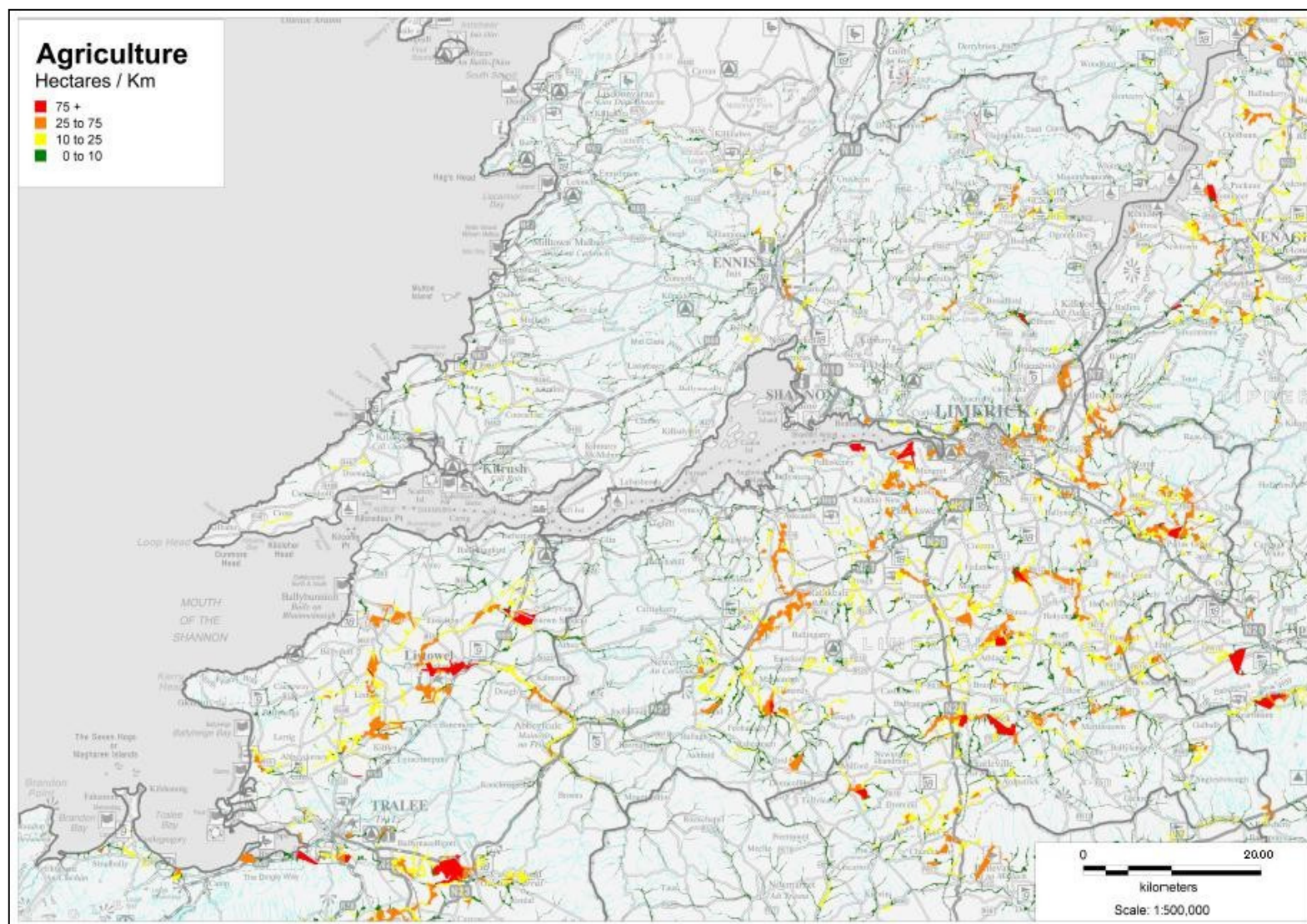


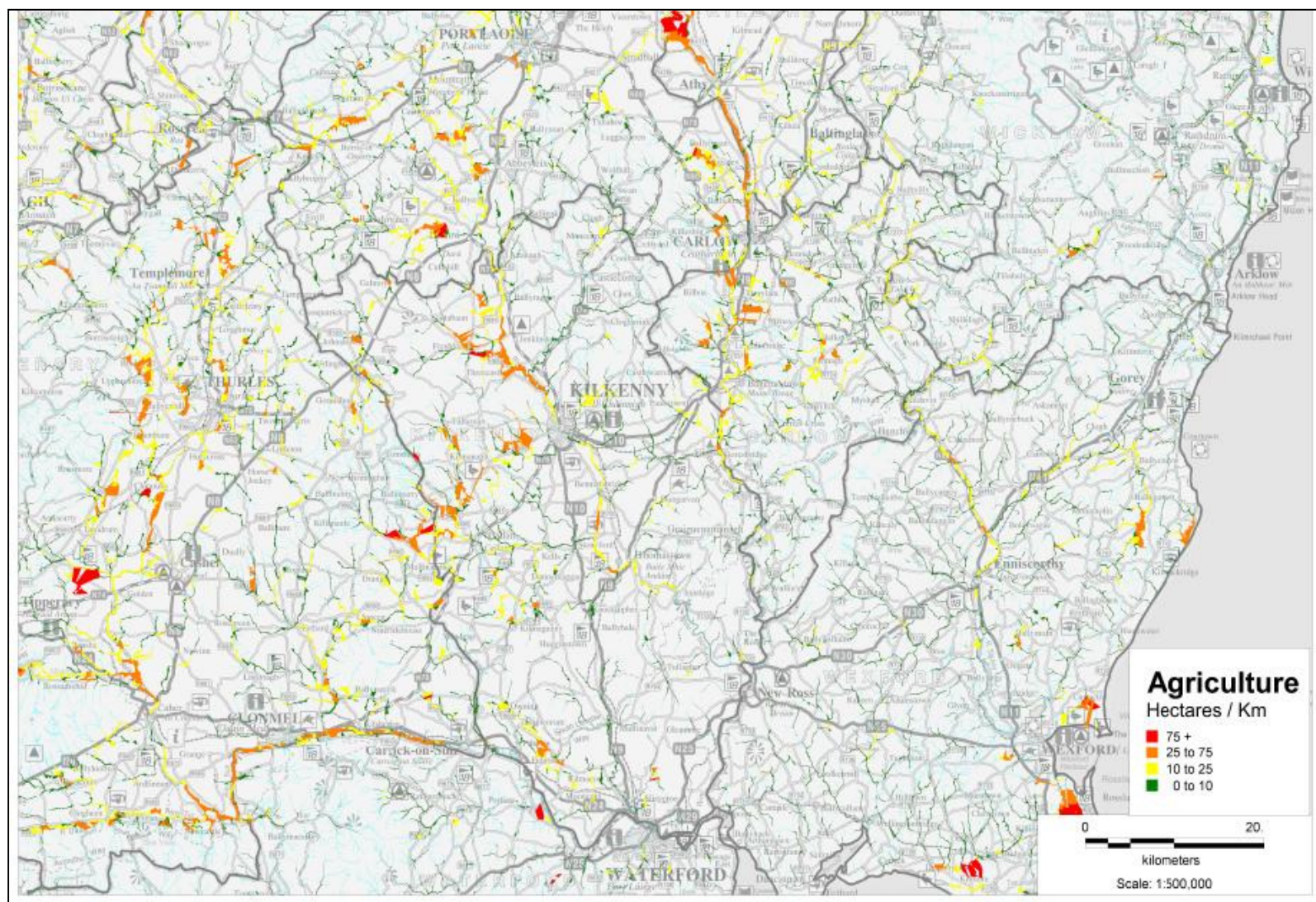


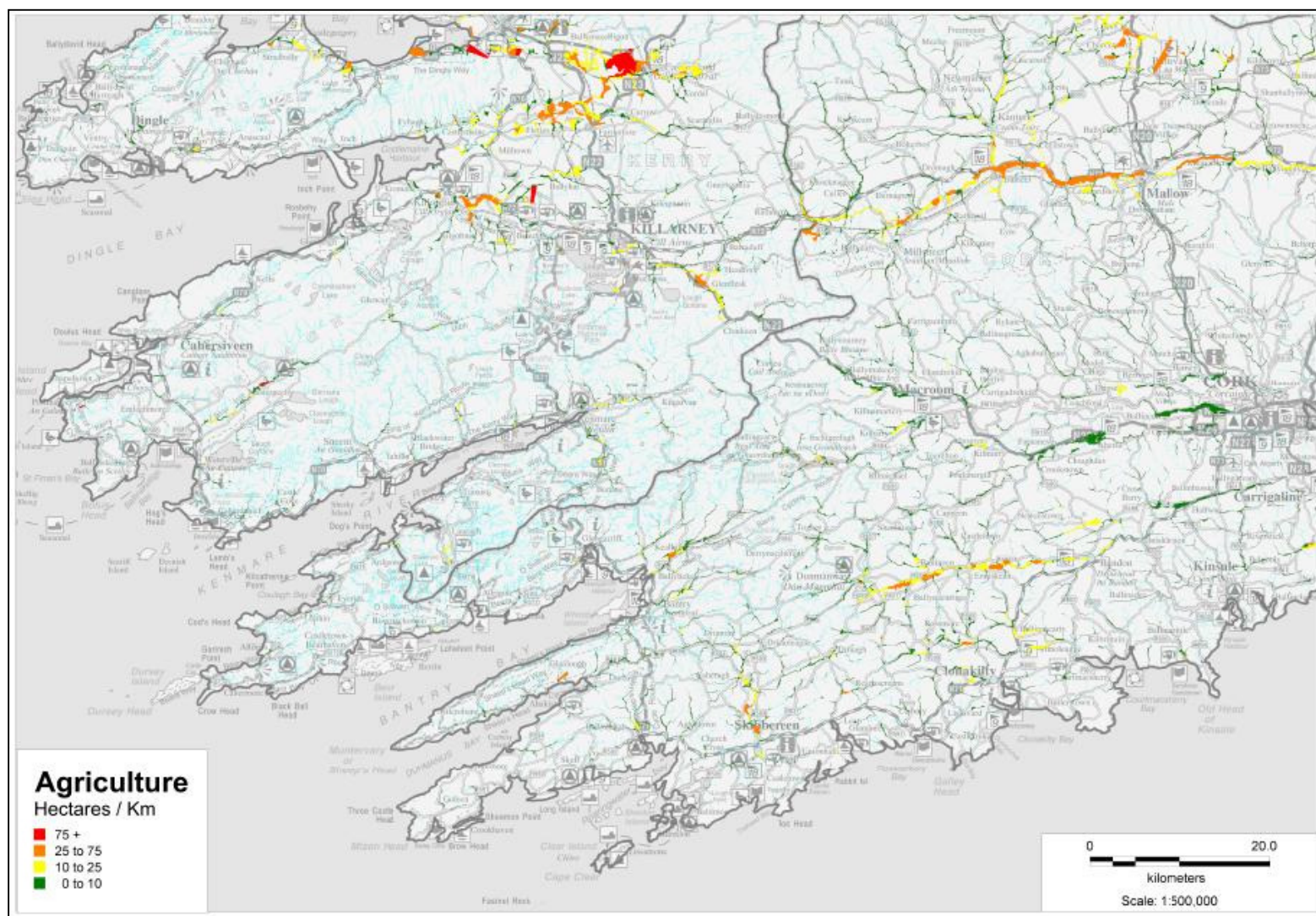


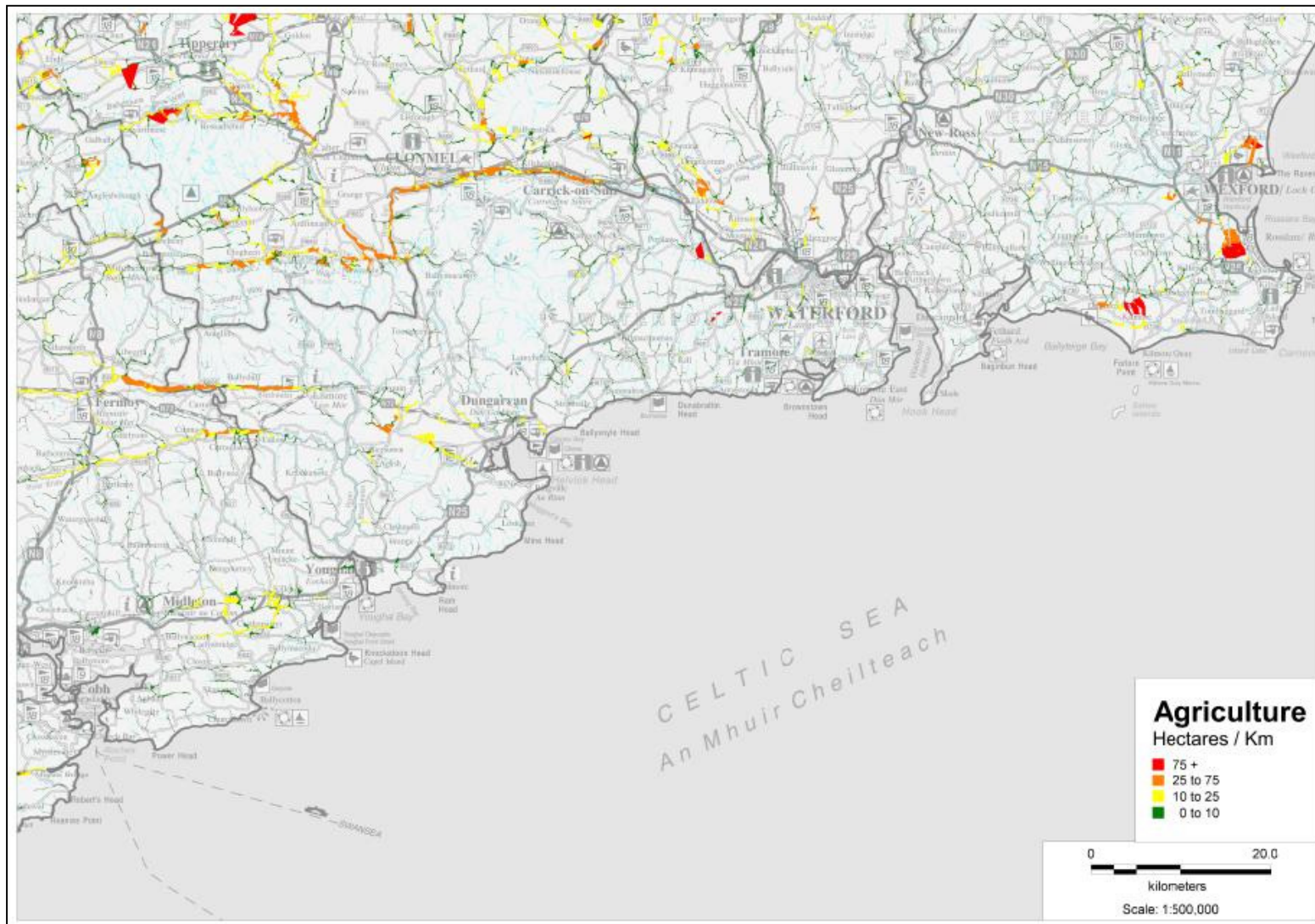












## **APPENDIX F**

### **PROBABLE AND POSSIBLE AREAS FOR FURTHER ASSESSMENT**

Set out in Table F.1 below are the probable and possible AFAs respectively related to natural sources of flooding (fluvial, sea water, groundwater). The principles and process for designation of AFAs is set out in Section 6.1.

The table does not include probable or possible AFAs related to environmental or agricultural risk (see Sections 6.2.1 and 6.2.2).

Probable and possible AFAs related to infrastructure owned and operated by the local authorities will be designated by the local authorities, taking into account the views and submissions made through the consultation process on the draft PFRA, subject to scrutiny of the OPW as Competent Authority for the implementation of the 'Floods' Directive in Ireland.

The ESB and Waterways Ireland have determined that there are no AFAs related to infrastructure that they own and operate.

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**TABLE F.1. PROBABLE AND POSSIBLE AREAS FOR FURTHER ASSESSMENT**

| County | ID No. | Location                  | Designation  |
|--------|--------|---------------------------|--------------|
| Carlow | 140151 | Bagenalstown              | Possible AFA |
| Carlow | 120131 | Ballykealey               | Possible AFA |
| Carlow | 120133 | Buncloody                 | Probable AFA |
| Carlow | 140155 | Carlow                    | Probable AFA |
| Carlow | 140166 | Leighlinbridge            | Probable AFA |
| Carlow | 140171 | Oldleighlin & Seskin Lowe | Possible AFA |
| Carlow | 121332 | Rathvilly                 | Possible AFA |
| Carlow | 120141 | Tullow                    | Probable AFA |
| Carlow | 121353 | Tullowphelim              | Possible AFA |
| Cavan  | 360566 | Annagelliff               | Possible AFA |
| Cavan  | 360568 | Ballyconnell              | Probable AFA |
| Cavan  | 360570 | Bawnboy                   | Possible AFA |
| Cavan  | 360571 | Blacklion                 | Possible AFA |
| Cavan  | 365080 | Butlersbridge             | Possible AFA |
| Cavan  | 360572 | Cavan                     | Probable AFA |
| Cavan  | 70038  | Mullagh                   | Probable AFA |
| Cavan  | 70044  | Virginia                  | Possible AFA |
| Clare  | 250402 | 1mon Inishcaltra          | Possible AFA |
| Clare  | 250405 | Annacarriga               | Possible AFA |
| Clare  | 250412 | Bridgetown                | Possible AFA |
| Clare  | 270471 | Bunratty                  | Probable AFA |
| Clare  | 280484 | Carrowmore                | Probable AFA |
| Clare  | 252918 | Cloonlara (Springfield)   | Probable AFA |
| Clare  | 270473 | Cranny                    | Possible AFA |
| Clare  | 270474 | Ennis                     | Probable AFA |
| Clare  | 274150 | Kilfenora                 | Possible AFA |
| Clare  | 270475 | Kilkee                    | Probable AFA |
| Clare  | 270476 | Kilrush                   | Probable AFA |
| Clare  | 270477 | Limerick City             | Probable AFA |
| Clare  | 270478 | Lissan West               | Probable AFA |
| Clare  | 250434 | O'Briensbridge            | Probable AFA |
| Clare  | 270480 | Quinn                     | Possible AFA |
| Clare  | 250439 | Raheen                    | Possible AFA |
| Clare  | 290491 | Scanlans Island & Environ | Possible AFA |
| Clare  | 270481 | Shannon & Shannon Airport | Probable AFA |
| Clare  | 270482 | Sixmilebridge             | Probable AFA |
| Cork   | 202474 | Ardcahan                  | Possible AFA |
| Cork   | 180270 | Ballyclough               | Possible AFA |
| Cork   | 190292 | Ballymakeery Ballyvourn   | Probable AFA |
| Cork   | 200293 | Bandon                    | Probable AFA |
| Cork   | 210307 | Bantry                    | Probable AFA |
| Cork   | 180268 | Buttevant                 | Possible AFA |
| Cork   | 190289 | Carrigaline               | Probable AFA |
| Cork   | 192399 | Carrigtwohill             | Possible AFA |
| Cork   | 180250 | Castlelyons               | Probable AFA |
| Cork   | 190277 | Castlemartyr              | Probable AFA |
| Cork   | 200294 | Clonakilty                | Probable AFA |
| Cork   | 190273 | Coachford                 | Possible AFA |
| Cork   | 190286 | Cork City                 | Probable AFA |
| Cork   | 190291 | Douglas                   | Probable AFA |
| Cork   | 192424 | Dromanallig               | Possible AFA |
| Cork   | 200295 | Dromore                   | Possible AFA |
| Cork   | 200296 | Dunderrow                 | Possible AFA |
| Cork   | 200297 | Dunmanway                 | Probable AFA |

|         |        |                           |              |
|---------|--------|---------------------------|--------------|
| Cork    | 210309 | Durrus                    | Probable AFA |
| Cork    | 180252 | Fermoy                    | Probable AFA |
| Cork    | 180253 | Freemount                 | Probable AFA |
| Cork    | 190290 | Glanmire                  | Probable AFA |
| Cork    | 190268 | Inchigeelagh              | Probable AFA |
| Cork    | 200298 | Inishannon                | Probable AFA |
| Cork    | 180254 | Kanturk                   | Probable AFA |
| Cork    | 210311 | Kealkill                  | Possible AFA |
| Cork    | 210313 | Kilcrohane                | Possible AFA |
| Cork    | 180256 | Killavullen               | Possible AFA |
| Cork    | 190274 | Killeagh                  | Possible AFA |
| Cork    | 190275 | Ladysbridge               | Possible AFA |
| Cork    | 190284 | Little Island             | Probable AFA |
| Cork    | 190270 | Macroom                   | Probable AFA |
| Cork    | 180262 | Mallow                    | Probable AFA |
| Cork    | 190279 | Middleton& Ballynacorra   | Probable AFA |
| Cork    | 242744 | Milford                   | Possible AFA |
| Cork    | 180263 | Mitchelstown              | Possible AFA |
| Cork    | 190276 | Mogeely                   | Possible AFA |
| Cork    | 180264 | New Twopothouse Village   | Possible AFA |
| Cork    | 180265 | Rathcormack               | Probable AFA |
| Cork    | 200301 | Ross Carbery              | Possible AFA |
| Cork    | 200302 | Skibbereen                | Probable AFA |
| Cork    | 200303 | Skull                     | Probable AFA |
| Cork    | 190288 | Togher                    | Probable AFA |
| Cork    | 190280 | Tower                     | Probable AFA |
| Cork    | 190282 | Whitegate                 | Probable AFA |
| Donegal | 360565 | 1esb Cloghore             | Possible AFA |
| Donegal | 380590 | 38 Carrickart Uplands 100 | Possible AFA |
| Donegal | 380591 | Annagary                  | Possible AFA |
| Donegal | 380592 | Ardara                    | Probable AFA |
| Donegal | 10002  | Ballybofey/Stranorlar     | Probable AFA |
| Donegal | 390598 | Ballymaleel               | Possible AFA |
| Donegal | 360569 | Ballyshannon              | Probable AFA |
| Donegal | 390599 | Bridge End                | Possible AFA |
| Donegal | 385321 | Bunbeg-Derrybeg           | Possible AFA |
| Donegal | 390600 | Buncrana                  | Probable AFA |
| Donegal | 354928 | Bundoran_& Env            | Possible AFA |
| Donegal | 390601 | Burnfoot                  | Probable AFA |
| Donegal | 400616 | Carndonagh                | Probable AFA |
| Donegal | 10632  | Carrigans                 | Possible AFA |
| Donegal | 380593 | Carrowcannon              | Possible AFA |
| Donegal | 380594 | Carrowkeel_100713         | Probable AFA |
| Donegal | 10003  | Castlefinn                | Possible AFA |
| Donegal | 400617 | Clonmany                  | Probable AFA |
| Donegal | 10005  | Convoy                    | Probable AFA |
| Donegal | 370580 | Donegal                   | Probable AFA |
| Donegal | 380595 | Downies                   | Probable AFA |
| Donegal | 390603 | Drumgohill                | Possible AFA |
| Donegal | 380596 | Dunfanaghy                | Probable AFA |
| Donegal | 385339 | Dungloe                   | Possible AFA |
| Donegal | 380597 | Glenties                  | Probable AFA |
| Donegal | 370583 | Inver                     | Possible AFA |
| Donegal | 370584 | Kilcar                    | Possible AFA |
| Donegal | 370585 | Killybegs                 | Probable AFA |
| Donegal | 10007  | Killygordon               | Probable AFA |
| Donegal | 390606 | Kilmacrenan               | Probable AFA |
| Donegal | 370586 | Laghy                     | Possible AFA |
| Donegal | 390607 | Letterkenny               | Probable AFA |

|         |        |                           |              |
|---------|--------|---------------------------|--------------|
| Donegal | 10008  | Lifford                   | Probable AFA |
| Donegal | 400620 | Malin                     | Probable AFA |
| Donegal | 390609 | Millford                  | Possible AFA |
| Donegal | 400621 | Moville                   | Probable AFA |
| Donegal | 400622 | Muff                      | Possible AFA |
| Donegal | 390610 | Newtown Cunningham        | Probable AFA |
| Donegal | 395418 | Ramelton                  | Possible AFA |
| Donegal | 370587 | Rathinny Near Ballintra   | Possible AFA |
| Donegal | 390611 | Rathmelton                | Probable AFA |
| Donegal | 390613 | Rathmullan                | Probable AFA |
| Donegal | 390614 | Speenogue                 | Possible AFA |
| Donegal | 350563 | Tullaghan                 | Possible AFA |
| Dublin  | 90070  | Adamstown                 | Possible AFA |
| Dublin  | 80053  | Balbriggan                | Probable AFA |
| Dublin  | 90071  | Balgriffin                | Probable AFA |
| Dublin  | 90072  | Belcamp Park              | Probable AFA |
| Dublin  | 100114 | Bray                      | Probable AFA |
| Dublin  | 90081  | Clontarf                  | Probable AFA |
| Dublin  | 80055  | Donabate                  | Probable AFA |
| Dublin  | 90082  | Dublin City               | Probable AFA |
| Dublin  | 91074  | Esker South               | Possible AFA |
| Dublin  | 90084  | Finglas, Glasnevin        | Probable AFA |
| Dublin  | 91077  | Finnstown                 | Possible AFA |
| Dublin  | 91086  | Hazelhatch                | Possible AFA |
| Dublin  | 90088  | Kinsaley                  | Probable AFA |
| Dublin  | 100121 | Loughlinstown             | Probable AFA |
| Dublin  | 90090  | Lucan To Chapelizod       | Probable AFA |
| Dublin  | 80057  | Lusk                      | Probable AFA |
| Dublin  | 90091  | Malahide                  | Probable AFA |
| Dublin  | 90093  | Mulhuddart                | Probable AFA |
| Dublin  | 105456 | Old Connaught/Wilford     | Possible AFA |
| Dublin  | 80058  | Oldtown                   | Probable AFA |
| Dublin  | 80059  | Portrane                  | Probable AFA |
| Dublin  | 90096  | Raheny                    | Probable AFA |
| Dublin  | 90097  | Rathcoole, Saggart & Bald | Probable AFA |
| Dublin  | 80061  | Rush                      | Probable AFA |
| Dublin  | 90099  | Santry                    | Probable AFA |
| Dublin  | 90100  | Santry Demesne            | Possible AFA |
| Dublin  | 105455 | Shankhill (Cricken)       | Possible AFA |
| Dublin  | 80062  | Skerries                  | Probable AFA |
| Dublin  | 80063  | Staffordstown Turvey      | Probable AFA |
| Dublin  | 90102  | Sutton & Baldoyle         | Probable AFA |
| Dublin  | 90103  | Sutton & Howth North      | Probable AFA |
| Dublin  | 80064  | Swords                    | Probable AFA |
| Dublin  | 90104  | Swords (South)            | Probable AFA |
| Galway  | 300492 | 1esb Ballygaddy           | Possible AFA |
| Galway  | 250399 | Abbey                     | Possible AFA |
| Galway  | 304468 | Addergoole (Ed Annaghdown | Possible AFA |
| Galway  | 263234 | Ahascragh                 | Possible AFA |
| Galway  | 310513 | An Chathair               | Possible AFA |
| Galway  | 310514 | An Cheathru Rua (Carraroe | Possible AFA |
| Galway  | 294225 | Ardrahan North            | Possible AFA |
| Galway  | 260451 | Ballinasloe               | Probable AFA |
| Galway  | 294251 | Ballynacourty             | Possible AFA |
| Galway  | 250409 | Banagher                  | Possible AFA |
| Galway  | 310515 | Bearna                    | Possible AFA |
| Galway  | 310516 | Both Chunna Thiar         | Possible AFA |
| Galway  | 304528 | Carnmore East             | Possible AFA |
| Galway  | 300497 | Claregalway               | Probable AFA |

|        |          |                          |              |
|--------|----------|--------------------------|--------------|
| Galway | 290493   | Clarinbridge             | Possible AFA |
| Galway | 320523   | Clifden                  | Possible AFA |
| Galway | 252906   | Clonfert North (Seymour) | Possible AFA |
| Galway | 304562   | Cong                     | Possible AFA |
| Galway | 300499   | Corrofin                 | Probable AFA |
| Galway | 294316   | Craughwell               | Possible AFA |
| Galway | 294331   | Frenchfort               | Possible AFA |
| Galway | 300502   | Galway City              | Probable AFA |
| Galway | 294338   | Gort                     | Possible AFA |
| Galway | 300503   | Headford                 | Possible AFA |
| Galway | 300504   | Inchiquin                | Possible AFA |
| Galway | 300505   | Inishmicatreer           | Possible AFA |
| Galway | 260463   | Kilconnell               | Possible AFA |
| Galway | 294367   | Kiltartan                | Possible AFA |
| Galway | 290487   | Kinvarra                 | Possible AFA |
| Galway | 290488   | Knockakilleen & Environs | Possible AFA |
| Galway | 300507   | Knocknacarra             | Probable AFA |
| Galway | 310517   | Knocknacarra Rusheen Bay | Possible AFA |
| Galway | 290489   | Loughrea                 | Probable AFA |
| Galway | 304654   | Maum West                | Possible AFA |
| Galway | 310518   | Na Forbacha              | Possible AFA |
| Galway | 310519   | Na Haille                | Possible AFA |
| Galway | 305486   | Newtownabbey             | Possible AFA |
| Galway | 290490   | Oranmore                 | Probable AFA |
| Galway | 300508   | Oughterard               | Probable AFA |
| Galway | 250437   | Portumna                 | Probable AFA |
| Galway | 300510   | Tuam                     | Probable AFA |
| Galway | GW-29009 | Galway City And Suburbs  | Probable AFA |
| Galway | GW-29003 | Kilcornan/Rohvehagh      | Probable AFA |
| Galway | GW-25010 | Derryfrench              | Probable AFA |
| Kerry  | 210305   | 1mon Church Island       | Possible AFA |
| Kerry  | 230341   | Abbeydorney              | Probable AFA |
| Kerry  | 222579   | Anascaul                 | Possible AFA |
| Kerry  | 232629   | Ardfert                  | Possible AFA |
| Kerry  | 230342   | Aughacasla               | Possible AFA |
| Kerry  | 230344   | Ballyheige               | Possible AFA |
| Kerry  | 240370   | Ballylongford            | Probable AFA |
| Kerry  | 222583   | Ballymalis               | Possible AFA |
| Kerry  | 230345   | Banna                    | Probable AFA |
| Kerry  | 220320   | Boolteens                | Possible AFA |
| Kerry  | 230346   | Carhoonaknock            | Possible AFA |
| Kerry  | 220323   | Castleisland             | Possible AFA |
| Kerry  | 220324   | Castlemaine              | Probable AFA |
| Kerry  | 220325   | Coolroe Lower            | Possible AFA |
| Kerry  | 220326   | Cordal                   | Possible AFA |
| Kerry  | 222594   | Cromane, Kerry           | Possible AFA |
| Kerry  | 222595   | Curreal                  | Possible AFA |
| Kerry  | 222596   | Derreenacullig           | Possible AFA |
| Kerry  | 230349   | Derryquay                | Possible AFA |
| Kerry  | 220327   | Dingle                   | Probable AFA |
| Kerry  | 230351   | Dromroe                  | Possible AFA |
| Kerry  | 220329   | Faha West                | Possible AFA |
| Kerry  | 220330   | Farranfore               | Possible AFA |
| Kerry  | 220331   | Fieries                  | Possible AFA |
| Kerry  | 225503   | Fossa                    | Possible AFA |
| Kerry  | 220333   | Glenbeigh                | Possible AFA |
| Kerry  | 225502   | Glenflesk                | Possible AFA |
| Kerry  | 220335   | Gortnacarriga            | Possible AFA |
| Kerry  | 210312   | Kenmare                  | Probable AFA |

|          |        |                     |              |
|----------|--------|---------------------|--------------|
| Kerry    | 232681 | Kilfenora           | Possible AFA |
| Kerry    | 220337 | Killarney           | Probable AFA |
| Kerry    | 220338 | Killorglin          | Probable AFA |
| Kerry    | 230356 | Lisselton           | Possible AFA |
| Kerry    | 230357 | Listowel            | Probable AFA |
| Kerry    | 220339 | Milltown            | Probable AFA |
| Kerry    | 230359 | Moher               | Possible AFA |
| Kerry    | 232679 | Moneycashen         | Possible AFA |
| Kerry    | 220340 | Portmagee           | Probable AFA |
| Kerry    | 182363 | Rathmore            | Possible AFA |
| Kerry    | 222623 | Rossbehy            | Possible AFA |
| Kerry    | 212577 | Sneem               | Possible AFA |
| Kerry    | 210315 | Templenoe           | Possible AFA |
| Kerry    | 230361 | Tralee              | Probable AFA |
| Kildare  | 90068  | 1power Longstone    | Possible AFA |
| Kildare  | 140147 | Allenwood           | Probable AFA |
| Kildare  | 140150 | Athy                | Probable AFA |
| Kildare  | 141393 | Aughrim             | Possible AFA |
| Kildare  | 141399 | Ballitore           | Possible AFA |
| Kildare  | 91019  | Ballymore Eustace   | Possible AFA |
| Kildare  | 90073  | Blacktrench         | Possible AFA |
| Kildare  | 140153 | Blackwood           | Possible AFA |
| Kildare  | 90075  | Carragh             | Possible AFA |
| Kildare  | 140156 | Castledermot        | Probable AFA |
| Kildare  | 90076  | Celbridge           | Probable AFA |
| Kildare  | 90078  | Clane               | Probable AFA |
| Kildare  | 91080  | Grange              | Possible AFA |
| Kildare  | 90086  | Johnstown (Ne Naas) | Possible AFA |
| Kildare  | 91095  | Kilcock             | Probable AFA |
| Kildare  | 91096  | Kilcullen           | Possible AFA |
| Kildare  | 90087  | Kill                | Possible AFA |
| Kildare  | 90089  | Leixlip             | Probable AFA |
| Kildare  | 90092  | Maynooth            | Probable AFA |
| Kildare  | 90094  | Naas                | Probable AFA |
| Kildare  | 90095  | Newbridge           | Probable AFA |
| Kildare  | 140170 | Old River Bridge    | Possible AFA |
| Kildare  | 140175 | Rathangan           | Probable AFA |
| Kildare  | 141635 | Riverstown          | Possible AFA |
| Kildare  | 91153  | Roestown            | Possible AFA |
| Kildare  | 91156  | Sallins             | Possible AFA |
| Kildare  | 90101  | Straffan            | Possible AFA |
| Kildare  | 140178 | Suncroft            | Possible AFA |
| Kildare  | 90105  | Turnings            | Possible AFA |
| Kilkenny | 150181 | Ballyhale           | Possible AFA |
| Kilkenny | 150182 | Ballyragget         | Possible AFA |
| Kilkenny | 151688 | Bennettsbridge      | Possible AFA |
| Kilkenny | 150185 | Callan              | Possible AFA |
| Kilkenny | 161946 | Fiddown             | Probable AFA |
| Kilkenny | 150190 | Freshford           | Possible AFA |
| Kilkenny | 165465 | Gorteen             | Possible AFA |
| Kilkenny | 140162 | Graiguenamanagh     | Probable AFA |
| Kilkenny | 150192 | Inistioge           | Probable AFA |
| Kilkenny | 150194 | Kilkenny-Breagagh   | Probable AFA |
| Kilkenny | 162013 | Kilmacow            | Possible AFA |
| Kilkenny | 162079 | Mooncoin            | Possible AFA |
| Kilkenny | 150195 | Mountrath           | Possible AFA |
| Kilkenny | 160232 | Mullinavat          | Probable AFA |
| Kilkenny | 160234 | Owning              | Possible AFA |
| Kilkenny | 160235 | Piltown             | Probable AFA |

|          |        |                      |              |
|----------|--------|----------------------|--------------|
| Kilkenny | 150201 | Thomastown           | Probable AFA |
| Kilkenny | 150202 | Threecastles         | Possible AFA |
| Kilkenny | 160242 | Waterford            | Probable AFA |
| Laois    | 150183 | Ballyroan            | Probable AFA |
| Laois    | 140152 | Barnashrone          | Possible AFA |
| Laois    | 151691 | Borris In Ossory     | Possible AFA |
| Laois    | 150184 | Bowe's Cross Roads   | Possible AFA |
| Laois    | 150186 | Camross              | Possible AFA |
| Laois    | 140157 | Clogrenan Bridge     | Possible AFA |
| Laois    | 250420 | Clonaslee            | Probable AFA |
| Laois    | 140164 | Killeen              | Possible AFA |
| Laois    | 140165 | Killeshin            | Probable AFA |
| Laois    | 140167 | Monasterevin         | Probable AFA |
| Laois    | 140168 | Mountmellick         | Probable AFA |
| Laois    | 150198 | Mountrath            | Possible AFA |
| Laois    | 150199 | Oldtown              | Possible AFA |
| Laois    | 140173 | Portarlinton         | Probable AFA |
| Laois    | 140174 | Portlaoise           | Probable AFA |
| Laois    | 150200 | Rathdowney           | Possible AFA |
| Laois    | 140176 | Ratheven & Ballyroan | Probable AFA |
| Laois    | 145460 | Rosenallis           | Possible AFA |
| Laois    | 140177 | Stradbally           | Possible AFA |
| Laois    | 140179 | Timahoe              | Possible AFA |
| Leitrim  | 360567 | Ballinamore          | Possible AFA |
| Leitrim  | 260455 | Carrickonshannon     | Probable AFA |
| Leitrim  | 260459 | Drumshanbo           | Probable AFA |
| Leitrim  | 365490 | Keshcarrig           | Possible AFA |
| Leitrim  | 263853 | Leitrim              | Possible AFA |
| Leitrim  | 350557 | Manorhamilton        | Probable AFA |
| Leitrim  | 260466 | Mohill               | Probable AFA |
| Limerick | 232632 | Abbeyfeale           | Possible AFA |
| Limerick | 240364 | Adare                | Probable AFA |
| Limerick | 252771 | Annacotty            | Possible AFA |
| Limerick | 240365 | Askeaton             | Probable AFA |
| Limerick | 232630 | Athea                | Probable AFA |
| Limerick | 242701 | Bruff                | Possible AFA |
| Limerick | 242702 | Bruree               | Possible AFA |
| Limerick | 250413 | Caherconlish         | Possible AFA |
| Limerick | 250415 | Cappamore            | Probable AFA |
| Limerick | 252889 | Castleconnell        | Probable AFA |
| Limerick | 250417 | Castletroy           | Probable AFA |
| Limerick | 240376 | Charleville          | Probable AFA |
| Limerick | 240377 | Clarina              | Probable AFA |
| Limerick | 240381 | Croom                | Probable AFA |
| Limerick | 242722 | Dromcolliher         | Probable AFA |
| Limerick | 240383 | Foynes               | Probable AFA |
| Limerick | 160220 | Galbally             | Possible AFA |
| Limerick | 250424 | Garryglass           | Probable AFA |
| Limerick | 240385 | Kildimo New          | Probable AFA |
| Limerick | 240386 | Killacolla           | Possible AFA |
| Limerick | 242738 | Kilmacow             | Possible AFA |
| Limerick | 240388 | Kilmallock           | Probable AFA |
| Limerick | 240390 | Monaster             | Possible AFA |
| Limerick | 240392 | Newcastle West       | Probable AFA |
| Limerick | 253142 | Oola                 | Possible AFA |
| Limerick | 240393 | Patrickswell         | Possible AFA |
| Limerick | 240394 | Rathkeale            | Probable AFA |
| Limerick | 240396 | Strand               | Probable AFA |
| Longford | 260444 | 1esb Lanesbrough     | Possible AFA |

|          |        |                          |              |
|----------|--------|--------------------------|--------------|
| Longford | 260446 | Abbeyshrule              | Probable AFA |
| Longford | 260453 | Ballymahon               | Possible AFA |
| Longford | 263472 | Cloondara                | Possible AFA |
| Longford | 260460 | Edgeworthstown           | Probable AFA |
| Longford | 265473 | Elfeet                   | Possible AFA |
| Longford | 260464 | Longford                 | Probable AFA |
| Louth    | 60013  | Annagassan               | Probable AFA |
| Louth    | 60014  | Ardee                    | Probable AFA |
| Louth    | 70030  | Baltray                  | Possible AFA |
| Louth    | 60015  | Blackrock South          | Possible AFA |
| Louth    | 60016  | Carlingford & Greenore   | Probable AFA |
| Louth    | 70033  | Drogheda                 | Probable AFA |
| Louth    | 60718  | Dromiskin                | Possible AFA |
| Louth    | 60019  | Dundalk                  | Probable AFA |
| Louth    | 65450  | Greenmount               | Possible AFA |
| Louth    | 60020  | Inishkeen                | Possible AFA |
| Louth    | 60023  | Rathcor, Cooley          | Possible AFA |
| Louth    | 60766  | Tallanstown              | Possible AFA |
| Louth    | 60024  | Termonfeckin             | Probable AFA |
| Louth    | 70043  | Tullyallen               | Possible AFA |
| Mayo     | 340531 | 1sch_Carha               | Possible AFA |
| Mayo     | 300494 | 1sch_Clogher             | Possible AFA |
| Mayo     | 320522 | 1sch_Cloondaff           | Possible AFA |
| Mayo     | 340532 | 1sch_Kildaree            | Possible AFA |
| Mayo     | 340534 | Ballina & Environs       | Probable AFA |
| Mayo     | 300495 | Ballinrobe               | Possible AFA |
| Mayo     | 300496 | Ballyhaunis              | Probable AFA |
| Mayo     | 340535 | Ballysakeery & Abbeytown | Possible AFA |
| Mayo     | 340537 | Bunnyconnellan           | Possible AFA |
| Mayo     | 340538 | Castlebar                | Probable AFA |
| Mayo     | 340541 | Crossmolina              | Probable AFA |
| Mayo     | 340542 | Foxford                  | Probable AFA |
| Mayo     | 320526 | Louisburgh               | Probable AFA |
| Mayo     | 324767 | Newport                  | Possible AFA |
| Mayo     | 340543 | Swinford                 | Probable AFA |
| Mayo     | 320527 | Westport                 | Probable AFA |
| Mayo     | 320528 | Westport Bay             | Possible AFA |
| Mayo     | 320529 | Westport Quay            | Probable AFA |
| Meath    | 70025  | 1esb_Grangeageeth        | Possible AFA |
| Meath    | 70026  | 1esb_Randalstown         | Possible AFA |
| Meath    | 80049  | 1sch_Kilbride            | Possible AFA |
| Meath    | 70919  | 1wt_Stalleen             | Possible AFA |
| Meath    | 80052  | Ashbourne                | Probable AFA |
| Meath    | 70028  | Athboy                   | Probable AFA |
| Meath    | 70029  | Ballivor                 | Probable AFA |
| Meath    | 70031  | Bettystown               | Probable AFA |
| Meath    | 90079  | Clonee                   | Probable AFA |
| Meath    | 80056  | Duleek                   | Probable AFA |
| Meath    | 90083  | Dunboyne                 | Probable AFA |
| Meath    | 80067  | Gormanston               | Possible AFA |
| Meath    | 70035  | Johnstown Bridge         | Probable AFA |
| Meath    | 70036  | Kildalkey                | Possible AFA |
| Meath    | 60021  | Kilmainhamwood           | Possible AFA |
| Meath    | 70037  | Kilmessan                | Probable AFA |
| Meath    | 70888  | Longwood                 | Possible AFA |
| Meath    | 70880  | Mornington               | Probable AFA |
| Meath    | 70039  | Navan                    | Probable AFA |
| Meath    | 80060  | Ratoath                  | Probable AFA |
| Meath    | 70915  | Slane Bridge             | Possible AFA |

|           |        |                        |              |
|-----------|--------|------------------------|--------------|
| Meath     | 70041  | Trim                   | Probable AFA |
| Monaghan  | 365061 | Annaghkilly            | Possible AFA |
| Monaghan  | 60017  | Carrickmacross         | Probable AFA |
| Monaghan  | 60699  | Castleblayney & Env    | Possible AFA |
| Monaghan  | 365094 | Clones & Environs      | Possible AFA |
| Monaghan  | 30010  | Drumgoole              | Possible AFA |
| Monaghan  | 30011  | Monaghan               | Probable AFA |
| Monaghan  | 360576 | Scotshouse             | Possible AFA |
| Monaghan  | 360577 | Smithborough           | Possible AFA |
| Offaly    | 250400 | 1esb_Shannonbridge     | Possible AFA |
| Offaly    | 250403 | 1pow_Limcloon          | Possible AFA |
| Offaly    | 250410 | Birr                   | Probable AFA |
| Offaly    | 250418 | Clara                  | Probable AFA |
| Offaly    | 141464 | Clonbulloge            | Possible AFA |
| Offaly    | 140159 | Daingean               | Probable AFA |
| Offaly    | 70849  | Edenderry & Env        | Possible AFA |
| Offaly    | 253003 | Ferbane                | Possible AFA |
| Offaly    | 253051 | Kilcormac              | Probable AFA |
| Offaly    | 253069 | Kinnitty               | Possible AFA |
| Offaly    | 253115 | Moneygall              | Possible AFA |
| Offaly    | 250436 | Pollagh                | Probable AFA |
| Offaly    | 250438 | Rahan                  | Probable AFA |
| Offaly    | 255470 | Shannon Harbour        | Probable AFA |
| Offaly    | 250443 | Tullamore              | Probable AFA |
| Roscommon | 265481 | Athleague              | Possible AFA |
| Roscommon | 260450 | Ballaghaderreen 2 Of 2 | Probable AFA |
| Roscommon | 263286 | Ballyfarnan            | Possible AFA |
| Roscommon | 260454 | Boyle                  | Probable AFA |
| Roscommon | 260456 | Castlerea              | Probable AFA |
| Roscommon | 263661 | Dromod                 | Possible AFA |
| Roscommon | 263775 | Jamestown              | Possible AFA |
| Roscommon | 265482 | Knockvicar             | Possible AFA |
| Roscommon | 260445 | Lough Gara             | Possible AFA |
| Roscommon | 260467 | Roosky                 | Possible AFA |
| Roscommon | 260468 | Roscommon              | Probable AFA |
| Roscommon | 264007 | Strokestown            | Possible AFA |
| Sligo     | 350545 | 1sch_Sooey             | Possible AFA |
| Sligo     | 350547 | Ballymote              | Probable AFA |
| Sligo     | 350548 | Ballysadare&Environs   | Probable AFA |
| Sligo     | 340539 | Charlestown            | Probable AFA |
| Sligo     | 350549 | Collooney              | Probable AFA |
| Sligo     | 350550 | Coolaney               | Probable AFA |
| Sligo     | 350551 | Drumard                | Possible AFA |
| Sligo     | 350552 | Drumcliff & Carney     | Possible AFA |
| Sligo     | 350554 | Gorteen                | Probable AFA |
| Sligo     | 350555 | Grange                 | Probable AFA |
| Sligo     | 354987 | Grange                 | Possible AFA |
| Sligo     | 350558 | Rathbraghan Sligo Town | Probable AFA |
| Sligo     | 350559 | Riverstown             | Probable AFA |
| Sligo     | 350561 | Sligo Town             | Probable AFA |
| Sligo     | 340544 | Tobercurry             | Probable AFA |
| Sligo     | 350564 | Willowbrock & Environs | Possible AFA |
| Tipperary | 160204 | 1nur_Dundrum_Boherboy  | Possible AFA |
| Tipperary | 160205 | Ardfinnan              | Probable AFA |
| Tipperary | 160206 | Ballinaclogh           | Possible AFA |
| Tipperary | 165497 | Ballinunty             | Possible AFA |
| Tipperary | 165498 | Ballylooby             | Possible AFA |
| Tipperary | 160208 | Ballyporeen            | Probable AFA |
| Tipperary | 160209 | Bansha                 | Probable AFA |

|           |        |                       |              |
|-----------|--------|-----------------------|--------------|
| Tipperary | 250411 | Borrisokane           | Probable AFA |
| Tipperary | 160210 | Borrisoleigh          | Probable AFA |
| Tipperary | 160211 | Caher                 | Probable AFA |
| Tipperary | 160212 | Carrick-On-Suir       | Probable AFA |
| Tipperary | 255469 | Carrigahorig          | Possible AFA |
| Tipperary | 160213 | Clogheen              | Probable AFA |
| Tipperary | 160216 | Clonmel               | Probable AFA |
| Tipperary | 252978 | Dromineer             | Possible AFA |
| Tipperary | 160219 | Fethard               | Probable AFA |
| Tipperary | 160221 | Golden                | Probable AFA |
| Tipperary | 160224 | Hollyford             | Possible AFA |
| Tipperary | 150193 | Kilkenny - Nore       | Probable AFA |
| Tipperary | 250427 | Killaloe              | Probable AFA |
| Tipperary | 250428 | Limerick Junction     | Possible AFA |
| Tipperary | 160230 | Marfield              | Probable AFA |
| Tipperary | 255475 | Monard                | Possible AFA |
| Tipperary | 160231 | Mullinahone           | Probable AFA |
| Tipperary | 250432 | Nenagh                | Probable AFA |
| Tipperary | 160233 | Newcastle             | Probable AFA |
| Tipperary | 250433 | Newport               | Probable AFA |
| Tipperary | 160236 | Rathkea               | Possible AFA |
| Tipperary | 250440 | Roscrea               | Probable AFA |
| Tipperary | 160238 | Templemore            | Probable AFA |
| Tipperary | 160239 | Thurles               | Probable AFA |
| Tipperary | 160240 | Tipperary Town        | Probable AFA |
| Tipperary | 162157 | Toor More             | Possible AFA |
| Waterford | 180247 | Aglish                | Possible AFA |
| Waterford | 180248 | Ballyduff             | Probable AFA |
| Waterford | 170243 | Ballynacourty         | Possible AFA |
| Waterford | 180249 | Cappoquin             | Possible AFA |
| Waterford | 161875 | Cheekpoint, Waterford | Possible AFA |
| Waterford | 180251 | Clashmore             | Possible AFA |
| Waterford | 175469 | Duckspool/Sallybrook  | Possible AFA |
| Waterford | 170244 | Dungarvan             | Probable AFA |
| Waterford | 170245 | Dunmore East          | Probable AFA |
| Waterford | 161983 | Greenan               | Possible AFA |
| Waterford | 172210 | Killadangan           | Possible AFA |
| Waterford | 180260 | Lismore               | Possible AFA |
| Waterford | 175470 | Newtown               | Possible AFA |
| Waterford | 172222 | Passage East          | Possible AFA |
| Waterford | 162103 | Portlaw               | Probable AFA |
| Waterford | 170246 | Ringphuca             | Probable AFA |
| Waterford | 180266 | Tallow                | Probable AFA |
| Waterford | 172228 | Tramore & Env         | Possible AFA |
| Waterford | 172230 | Woodstown Lower       | Possible AFA |
| Waterford | 180267 | Youghal               | Probable AFA |
| Westmeath | 260448 | Athlone               | Probable AFA |
| Westmeath | 250426 | Kilbeggan             | Probable AFA |
| Westmeath | 70027  | Milltownpass          | Possible AFA |
| Westmeath | 250431 | Mullingar             | Probable AFA |
| Westmeath | 70911  | Riverstown            | Possible AFA |
| Wexford   | 120130 | Ballyhire - St Helens | Possible AFA |
| Wexford   | 110125 | Blackwater            | Possible AFA |
| Wexford   | 130143 | Bridgetown            | Possible AFA |
| Wexford   | 120134 | Carricklawn-Wexford   | Possible AFA |
| Wexford   | 121291 | Castlebridge          | Possible AFA |
| Wexford   | 120135 | Clonard               | Possible AFA |
| Wexford   | 110126 | Courtown              | Probable AFA |
| Wexford   | 120143 | Curraclloe            | Possible AFA |

|         |        |                           |              |
|---------|--------|---------------------------|--------------|
| Wexford | 120137 | Enniscorthy               | Probable AFA |
| Wexford | 120138 | Fairfield & Cherryorchard | Possible AFA |
| Wexford | 131373 | Fethard                   | Possible AFA |
| Wexford | 110127 | Gorey                     | Probable AFA |
| Wexford | 130146 | Kilmore                   | Probable AFA |
| Wexford | 141599 | New Ross & Env            | Possible AFA |
| Wexford | 125457 | North Slobs               | Probable AFA |
| Wexford | 120144 | Rosslare                  | Possible AFA |
| Wexford | 125456 | South Slobs / Rosslare Po | Probable AFA |
| Wexford | 120142 | Wexford                   | Probable AFA |
| Wicklow | 100106 | 1esb_Shelton Abbey        | Possible AFA |
| Wicklow | 120128 | 1esb_Shillelagh           | Possible AFA |
| Wicklow | 90069  | 1power_Pollaphuca         | Possible AFA |
| Wicklow | 100108 | Annacurragh               | Possible AFA |
| Wicklow | 100109 | Arklow                    | Probable AFA |
| Wicklow | 100110 | Ashford & Rathnew         | Probable AFA |
| Wicklow | 100111 | Aughrim                   | Probable AFA |
| Wicklow | 100112 | Avoca                     | Probable AFA |
| Wicklow | 100113 | Balliaclass               | Possible AFA |
| Wicklow | 120132 | Baltinglass               | Probable AFA |
| Wicklow | 90074  | Blessington               | Possible AFA |
| Wicklow | 105454 | Brittas Bay               | Possible AFA |
| Wicklow | 100115 | Charlesland               | Possible AFA |
| Wicklow | 100116 | Enniskerry                | Probable AFA |
| Wicklow | 100107 | Glendalough               | Possible AFA |
| Wicklow | 140163 | Grange Con                | Possible AFA |
| Wicklow | 100117 | Greystones/Charlesland    | Probable AFA |
| Wicklow | 90085  | Hollywood                 | Possible AFA |
| Wicklow | 100118 | Kilcoole                  | Possible AFA |
| Wicklow | 100119 | Killiskey                 | Possible AFA |
| Wicklow | 100120 | Kilmacanoge               | Possible AFA |
| Wicklow | 100122 | Newcastle                 | Possible AFA |
| Wicklow | 100123 | Rathdrum                  | Possible AFA |
| Wicklow | 100124 | Wicklow                   | Probable AFA |