Monaghan County Council
Major Emergency Risk Register
2022

Record of Issues and Amendments

Amendment No.	Version No.	Date	Section Amended	Amended By
1.	1.1	Nov 2007	Document	A.C.F.O.
2.	1.2	Mar 2009	Document Title	A.C.F.O.
3.	1.3	Mar 2010	Document Title	A.C.F.O.
4.	1.4	June 2011	Amend severe weather	A.C.F.O.
5.	1.5	June 2011	Water supply information	A.C.F.O.
6.	1.6	March 2012	Severe Weather & Forest Fire	A.C.F.O.
7.	1.7	June 2013	Dates and amend Hazmat & RTC	A.C.F.O.
8.	1.8	August 2014	Dates & New format	A.C.F.O.
9.	1.9	June 2015	Dates	A.C.F.O.
10.	2.0	March 2017	Dates, Population numbers	A.C.F.O.
11.	2.1	January 2021	Dates & Statistics	A.S.O.
12.	2.2	June 2022	Updated Hazards, dates, added new hazards	S.A.C.F.O.

Section 1: Risk Assessment Process

Risk assessment process in Co. Monaghan

The risk assessment process is the first step in the emergency planning process in order to identify the risks applicable to County Monaghan and then plan according to the priorities identified. The aim of this process is to identify the main hazards threatening the functional area of County Monaghan and to assess the potential risk of each scenario in order to achieve a state of preparedness, and/or implement mitigating actions, which will reduce the impact of them. The risk assessment process comprises of four stages;

1. Establishing the context
2. Hazard Identification
3. Risk assessment
4. Recording the hazards

Risk management starts with an examination of the potential impact of the hazards identified and the likelihood of the hazard occurring within Co. Monaghan. The resulting judgement is recorded on a risk matrix for each event (Figure 3.1). The risk assessment provides a sound basis for determining a range of steps at the later stages of the emergency management cycle; especially in the Mitigation and the Planning and Preparedness stages.

Mitigation includes any actions which are taken in advance of the occurrence of an emergency to reduce the probability of that event happening. The most effective form of mitigation is total elimination of the hazard concerned.

In general responsibility for the mitigation of specific hazards lies with the organisations and companies which own and operate the facilities and services where the relevant hazards are found, such as airlines, railway companies, chemical manufactures etc. These organisations are referred to as “risk holders”. The risk assessment process was carried out in accordance with the guidance document, ‘*A*

Guide to Risk Assessment in Major Emergency Management (January 2010).' All risks identified are then plotted on a risk matrix.

Stage 1: Establishing the context

The purpose of this stage is to describe the characteristics of the area for which the risk assessment is being completed, as this will influence both the likelihood and the impact of a major emergency. Establishing the Local context enables a better understanding of the vulnerability and resilience of the area to emergencies.

Stage 2: Hazard Identification

The generic threats that exist in all communities are sometimes taken for granted (e.g. fires, road traffic accidents, accidents involving transport of people, hazardous materials, building collapse). The purpose at this stage is to review and note the generic hazards, including any particular features of these specific to the region, and then to add the hazards that are specific to the local area. Generally speaking, the hazards faced fall into four commonly used categories:

- Natural;
- Transportation;
- Technological;
- Civil.

Stage 3: Risk Assessment Process

The next stage is to consider the overall risks presented by these hazards. Risk assessment starts with an examination of the impact (severity of consequences to life and health, property and infrastructure, and the environment) of the hazards identified. The likelihood (probability) also has to be considered and the resulting judgement recorded on a risk matrix in the next stage. The basis for making this judgement should be set out on the individual hazard record sheet and should include sources which influence the judgement (e.g. national/level intelligence and advice from available centres of expertise, information from risk holder/risk regulator).

A five-point scale is proposed for categorising both impact and likelihood. In considering the potential impact of a hazard, it is relevant to take two factors into

account, - the type or nature of the impact, and the scale. The type or nature of impact June be considered in three fields:

- Impact on life, health and residual welfare of a community
- Social/environmental Impact. Social impact June be thought of in terms of disruption/displacement of people affected by the event, while environmental is impact on the physical area;
- Economic impact in terms of costs of property/ infrastructure damage as well as recovery costs or loss of economic production.

Stage 4: Recording potential risks on a Risk Matrix

A five by five matrix (see Figure below), using the scales for impact and likelihood presented in Tables below, is used to present the results of the risk assessment. The process requires the outcome from the risk assessment to be recorded and inserted in the box judged to be most appropriate for the functional area under consideration. Multi-agency perspectives can help bring balance to this task. The risk assessment exercise records, in a readily presentable format, the combined judgement of the principal response agencies in regard to the identified hazards in the area.

Section 2: Using the Risk Matrix

Classification of Likelihood		
Ranking	**Classification**	**Likelihood**
1	Extremely Unlikely	June occur only in exceptional circumstances; Once every 500 or more years
2	Very Unlikely	Is not expected to occur; and/or no recorded incidents or anecdotal evidence; and/or very few incidents in associated organisations, facilities or communicates; and / or little opportunity reason or means to occur; June occur once every 100-500 years.
3	Quite Unlikely	June occur at some time; and /or few, infrequent, random recorded incidents or little anecdotal evidence; some incidents in associated or comparable organisations worldwide; some opportunity, reason or means to occur; June occur once per 10-100 years.
4	Likely	Likely to or June occur; regular recorded incidents and strong anecdotal evidence and will probably occur once per 1-10 years
5	Very Likely	Very likely to occur; high level of recorded incidents and/or strong anecdotal evidence. Will probably occur more than once a year.

Classification of Impact			
Ranking	**Classification**	**Impact**	**Description**
1	Minor	Life, Health, Welfare	Small number of people affected; no fatalities and small number of minor injuries with first-aid treatment.
		Environment	No contamination, localised effects
		Infrastructure	<0.5M Euros
		Social	Minor localised disruption to community services or infrastructure
2	Limited	Life, Health, Welfare	Single fatality; limited number of people affected; a few serious injuries with hospitalisation and medical treatment required. Localised displacement of a small number of people for 6-24 hours. Personal support satisfied through local arrangements.
		Environment	Simple contamination, localised effects of short duration
		Infrastructure	0.5-3M Euros
		Social	Normal community functioning with some inconvenience.
3	Serious	Life, Health, Welfare	Significant number of people in affected area impacted with multiple fatalities (<5), multiple serious or extensive injuries (20), significant hospitalisation. Large number of people displaced for 6-24 hours or possibly beyond; up to 500 evacuated. External resources required for personal support.
		Environment	Simple contamination, widespread effects or extended duration.
		Infrastructure	3-10M Euros
		Social	Community only partially functioning, some services available.
4	Very Serious	Life, Health, Welfare	5 to 50 fatalities, up to 100 serious injuries, up to 2000 evacuated
		Environment	Heavy contamination, localised effects or extended duration
		Infrastructure	10-25M Euros
		Social	Community functioning poorly, minimal services available
5	Catastrophic	Life, Health, Welfare	Large numbers of people impacted with significant numbers of fatalities (>50), injuries in the hundreds, more than 2000 evacuated.
		Environment	Very heavy contamination, widespread effects of extended duration.
		Infrastructure	>25M Euros
		Social	Serious damage to infrastructure causing significant disruption to, or loss of, key services for prolonged period. Community unable to function without significant support.

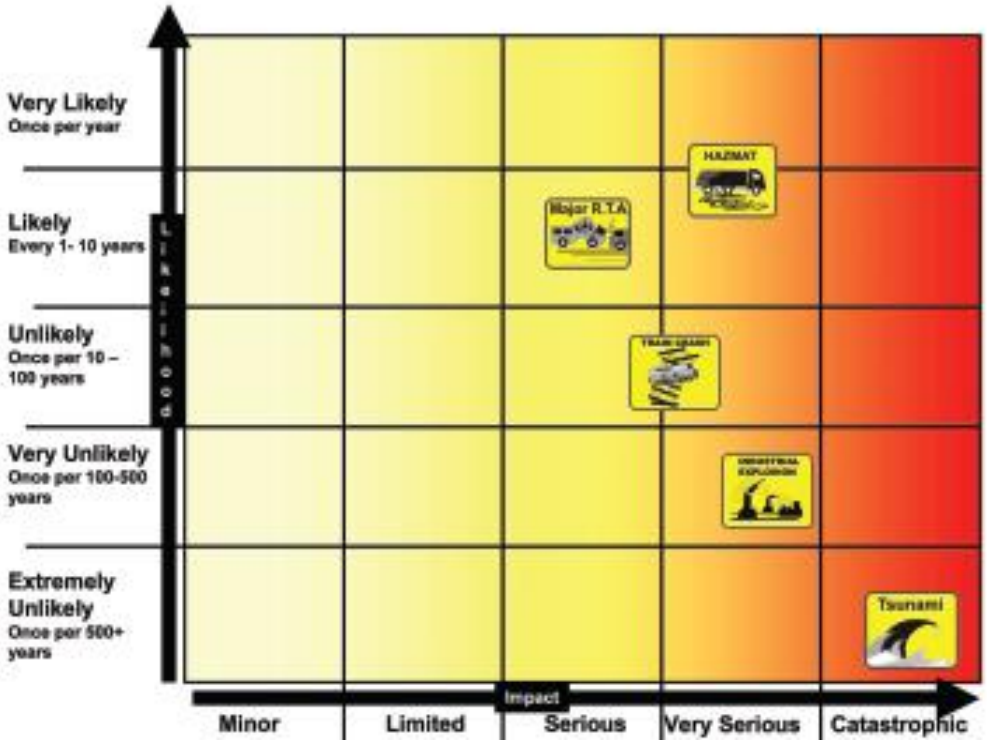


Figure 1: Example of risk matrix used in Major Emergency Planning

Section 3: Establishing the Context

<table>
<tr><th colspan="3">Social</th></tr>
<tr><td colspan="2">Population-major centres

County Monaghan 61,386

<u>Towns</u>
Monaghan Town 7,678
Carrickmacross 5,032
Castleblayney 3,607
Clones 1,680
Ballybay 1,241</td><td>Demography Summary

▪ Disability 11.7%
▪ Elderly (>65 yrs) 14%
▪ Children (>18yrs) 59%
▪ Children (12yrs – 18yrs) 8.4%
▪ Children (<12yrs) 18.6%
▪ Non-Irish Nationals 12%
Based on the Census report 2016</td></tr>
<tr><td rowspan="3">Primary economic drivers</td><td>Industry</td><td>Workforce 62.5% (62.3% National Average)

Some of the major indigenous private sector companies in County Monaghan are:
• Lakeland Dairies
• Grove Turkeys
• Monaghan Mushrooms
• Combi Lift Ltd.
• Feldhues GMBH
• Silverhill Foods
• Silvercrest Foods Ltd
• AIBP Ltd
• Kingspan Century Homes
• Kingspan Titan
• Kingspan Castleblaney
• Shabra Plastics & Packaging
• MC Chemicals
• Rye Valley Foods
• Lakeland Feed mills and Drying plant
• Abbotts Ireland</td></tr>
<tr><td>Tourism</td><td>Tourism revenue for Monaghan was €16 million. Figures from Bord Failte 2008 report

Tourist attractions in County Monaghan are:
• Rossmore Forest Park
• Monaghan R+B Harvest Festival
• Annual Patrick Kavanagh Weekend
• Lough Muckno Water Activities
• Sliabh Beagh Walks in Knockatallon
• Local Golf Clubs, Rossmore and Mannon Castle</td></tr>
<tr><td>Sports Activities</td><td>Ulster Final, St. Tiernachs Park, Capacity 32,000</td></tr>
</table>

	Agriculture	Agriculture has traditionally been the dominant economic activity in County Monaghan, but currently accounts for just 13.5% of the work by industry. Personal Income from Agriculture is currently at 13.5% compared to a National rate of 5.9% and Construction at 10.7%. The County has a greater dependence on agriculture than the national rate, but it has been declining since 1996. Co. Monaghan accounts for a great percentage of the Poultry Processing Industry in Ireland and poultry rearing facilities are a common site throughout the county.
	Education	Secondary Schools (Approx Numbers) Source www.schooldays.ie 2021 ▪ St. Louis (MN) 519 ▪ St. Louis (CMX) 521 ▪ St. Marcartan (MN) 601 ▪ Coláiste Oiriall (MN) 348 ▪ Collegiate (MN) 261 ▪ Beech Hill (MN) 577 ▪ Largy College (CL) 411 ▪ Patrician High School (CMX) 474 ▪ Inver College (CMX) 369 ▪ Our Lady's (CB) 714 ▪ Community College (BB) 353 ▪ Castleblayney College (CB) 269
Principle Emergency Services	An Garda Síochána	Part of Cavan/Monaghan Division Part of Dublin North-East Region.
	H.S.E.	•Monaghan •Cavan •Meath •Monaghan •North Dublin 2 acute hospitals are located at; •Our Lady of Lourdes, Drogheda: Capacity 340 beds. •Cavan General Hospital: Capacity 171 beds There are 2 ambulance stations; •Monaghan •Castleblayney Ambulance base at Castleblayney & Ardee with 1 No. Frontline EMT serves the South Monaghan areas.
	Fire Service	The County is serviced by 5 stations. There are 51 fire-fighters in the county. Each station has 9 fire fighters in it with the exception of Monaghan having 15. Fire Stations are located at the following bases: •Monaghan

	Civil Defence	• Clones • Castleblayney • Carrickmacross • Ballybay Part of North-east Region. • Monaghan • Cavan • Meath • Monaghan Resources for a major emergency can be called from within the region. County Monaghan Civil Defence provides the following voluntary services: • Land Search & rescue • Water Search & Rescue • Rescue Training • Crowd Control • First Responder • Ambulance Duties
Environment		
Geographical Characteristics	Area of County	1,295 km2
	Forestry	▪ Rossmore ▪ Dún na Rí Forest Park ▪ Dartrey
	National Heritage Sites	Clones Round Tower
	Main Rivers	▪ Blackwater ▪ Finn ▪ Glyde ▪ Fane ▪ Dromore
	Mountains	Slieve Beagh
Adjacent Counties Population	Cavan	71,176
	Meath	195,044
	Louth	128,884

	Armagh	174,792
	Tyrone	177,986
	Fermanagh	62,527
		Sourced from Internet - Wikipedia

Infrastructure

Transport types	Roads	N2	Monaghan – Dublin
		N12	Monaghan – Armagh
		N53	Castleblayney - Dundalk
		N54	Monaghan - Clones
		62% of journeys are taken by car. Average commute is 23 minutes.	
		All public service transport is by road network and is operated by public and by private service providers	
	Airport	No airport but close proximity to Dublin airport Major flight paths running adjacent to county Flight path will change according to weather conditions	
Electricity Supply		Under the control of the E.S.B. 60 Megawatt BESS (Battery Energy Storage Systems) Facility and 1 X 110kv power station located at Lisdrum 3km outside Monaghan Town 8 X 38kv power stations at various other locations throughout the county Upgrades to network from 10kv to 20kv transmission lines	
Gas Supply (Bord Gáis)		Gas is supplied by Bord Gáis to the south Monaghan town of Carrickmacross and further north to Lough Egish Food Retail Park. Bord Gáis are currently carrying out analysis of areas for further connections to the distribution main including the town of Monaghan.	
Water Supply in County Monaghan		15 Public (Irish Water) water schemes 13 Private water schemes There are 525km of water main network within County Monaghan. 85% of County Monaghan is covered with mains water (Public & Private Group Schemes) The council also provides 24 public sewerage treatment facilities throughout the county.	

Hazardous Sites	
Seveso sites	No Seveso sites in Monaghan region
Industrial Sites	- Kingspan holds large quantities of Pentane - MC Chemicals - Refrigeration Plants associated with food industry contain ammonia as part of its cooling process.
Bulk Petroleum Stores	- Cooltrim Oils, Lough Egish - Martins Fuels, Monaghan
Quarries	Quarries require the use of explosive materials for blasting purposes thereby constituting a hazard. The local Authority is responsible for the licensing of explosive magazine stores within the county. <u>Registered quarry locations are as follows:</u> - Roadstone Provinces Ltd, Ballybay - Roadstone Provinces Ltd, Castleblayney (closed but site poses a hazard) - Saint-Gobain Mines, CMX - Wrights Quarry, Swans cross - Monaghan Queries, Ardaghy Road, Monaghan - Carrickamore Quarries Ltd, Carrickmacross - Scotshouse Quarries, Scotshouse - Watersons Concrete, Emyvale - Limestone Industries Ltd - Carrickmacross - John McQuaid Quarry - Clontibret
Mining	Saint-Gobain Mining Ireland (underground) Knocknacran, Carrickmacross, Co. Monaghan - Disused underground mine collapse - Uncontrolled explosion due to error in blasting operations in underground mine
Illegal Activity	Diesel Wash (unknown locations) - Risk of fire & explosion due to the process

Section 4: Hazard Identification Template

It should be noted that these templates are not exhaustive of all possibilities. They should be used to stimulate discussions about the functional area where they are to be used. Tables should be edited as appropriate.

Natural Hazards			
Category	**Type**	**Sub-type**	**Local Hazard**
Meteorological	- Storm / Severe Gales - Heavy Snow	- High wind (Gales) - Blizzards & snow drifts	Anywhere in Co. Monaghan
Hydrological	Prolonged Heavy Rainfall / Flooding	Surcharging existing drainage capacity	Anywhere in Co. Monaghan
Other	Forest Fire	Wildland fires during prolonged dry periods	Wildland Areas of Co. Monaghan

Transportation Hazards			
Category	**Type**	**Sub-Type**	**Local Hazard**
Aviation	Aircraft	- Mid Air Collision - Malfunction - Terrorism attack	- Explosion above Monaghan - Emergency landing anywhere in the county
Rail	Passenger train	- Derailment - Train Collision	Not applicable to Co. Monaghan
Road	RTA (any vehicle)	- Hazmat - Major RTA	- Explosion on primary route or built up area involving multiple vehicles - Multiple car pile up - Bus Crash on any public road
Road	Laundering of Diesel	Toxic Pollution	Any water way within the county
Water	Recreational Activity	- Collision - Sinking	- Any water way within the county - Anywhere along the coast

Technological Hazards			
Category	**Type**	**Sub-Type**	**Local Hazard**
Industrial Accidents	Storage of Dangerous Gases for use in manufacturing	- Industrial Fires - Gas Leak	Any Industrial site in Co. Monaghan
	Storage of Petrol & Oil by wholesalers for retail distribution	Petrochemical Fires	Any Petroleum Station in Co. Monaghan
Explosions	Bomb	Terrorist attack	- Town Centre - Major sporting/ festival event
	Gas Explosion	Bord Gas Pipe Rupture on Transmission / Distribution Network	Anywhere in South Monaghan that gas is provided
	Acetylene	Explosion	Any industrial building or garage in County Monaghan
Fires	Building Inferno	- Arson - Electrical - Gas leak	- Hotels - Nightclubs - Bars - Restaurants
Building Collapse	Building Collapse	Structural Failure	- Shopping centres - Building of public gathering - Large Industrial
Hazardous Substance	CCBRN	- Terrorist Attack - Major RTA - Nuclear	- Large urban centres - Sellafield
Pollution/ Contamination	Pollution of Major Lakes / Rivers	Fish kills, destruction of eco systems.	- Any water way within the county
Cyber Attack	IT systems Monaghan County Council	- Breach of data protection - Theft of information - Comprise system integrity	Disrupt essential services provided by Monaghan County Council
Other	Mining	Mine collapse caused by collapse of disused mine or from uuncontrolled explosion due to error in blasting operations	Saint-Gobain, Carrickmacross, Co. Monaghan

Civil Hazards			
Category	**Type**	**Sub-Type**	**Local Hazard**
Civil Disorder/ Disturbance	Large gatherings / Festivals	- Intoxicated crowds - Brawls & looting	- St. Patricks Day Festival - Local Night Clubs - Local Festivals
Major Crowd Safety	Crowd Control	Crushing of patrons at large outdoor events	- St. Patricks Day Festival - Local Night Clubs - Local Festivals
Terrorism	Bombs	Car –bombs	Along border
		Bombs in buildings	Shopping centre
		Fire-bombing	Shopping centre
	Chemical Biological Radiological or Nuclear weapons	Poisoning & immobilisation	Larger urban centres
	Disruption	Bomb scare	Local night clubs
Loss of Critical Infrastructure	Overload of ESB Network or Malfunction	Power Failure	Power failure during cold winter months.
Food Situation Crisis	Food Contamination	Salmonella	Most at risk are the old, sick and young. Poultry stock such as hens, chickens and ducks would be at risk and possible carriers of the bacteria.
Water Supply	Pollution of Public water supply	Cryptosporidium contamination of water supply	Contamination of public water supply.
	Severe Drought	Water Shortage	Any water supply within the County
Epidemics and pandemic	Viral Disease	Flu Epidemic / Flu Pandemic / Coronavirus	Nationwide
War/ Conflict	Invasion	Displaced/ Dispersed people	Nationwide
Animal Disease	Viral Disease / Bacterial Disease	Avian Flu	Agriculture Nationwide
		Foot & Mouth Disease	

Section 5: Map of Operational Area

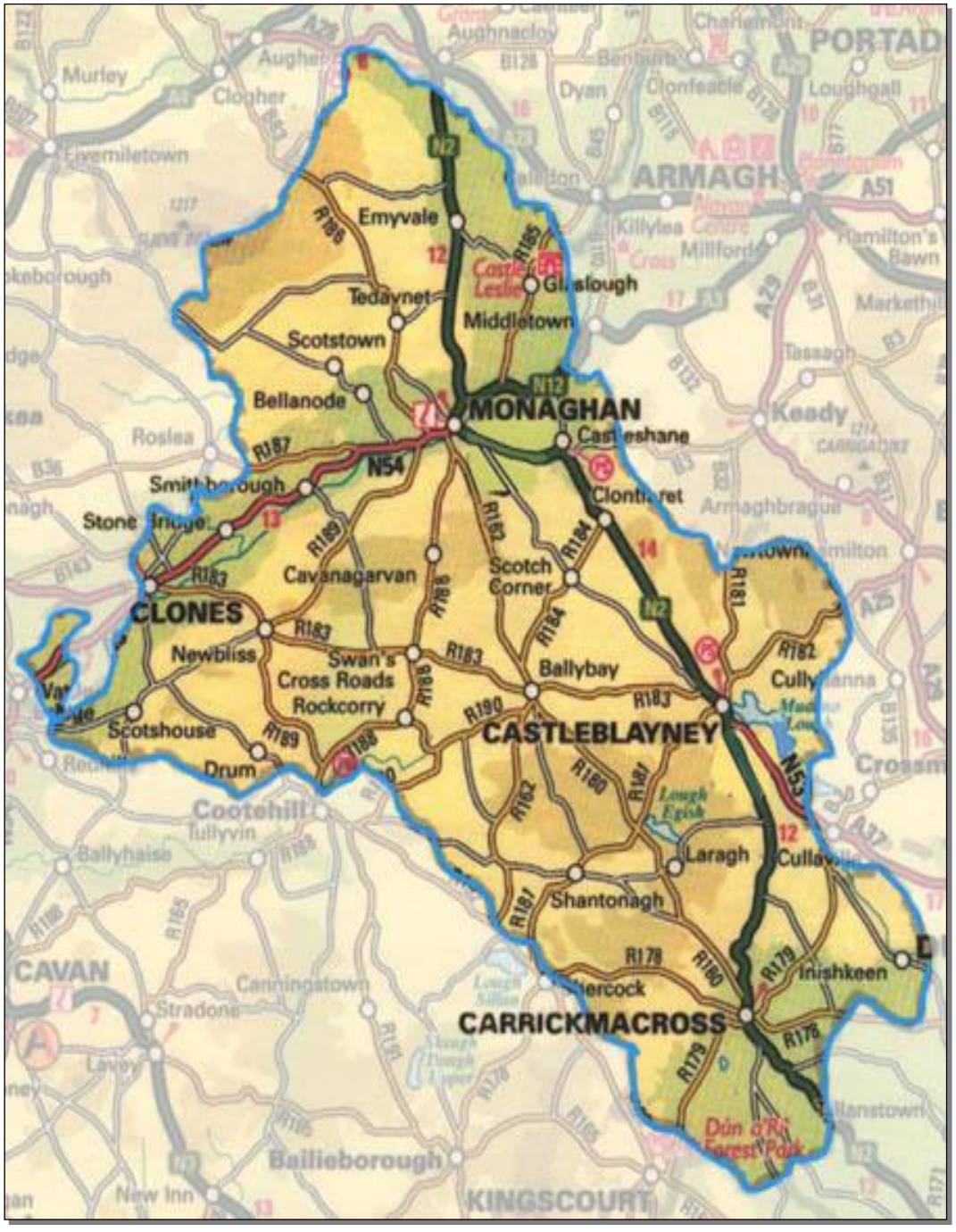


Figure 2: Map of Co. Monaghan

Section 6: Monaghan County Council Risk Assessment

Severe weather	
HAZARD CATEGORY	**SUB-CATEGORY**
Natural	Meteorological
HAZARD DESCRIPTION	**HAZARD LOCATION**
Severe weather e.g. Heavy winds & Blizzard conditions	Anywhere within the Co. Monaghan Boundary
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

Issues arising as a result of severe weather affecting the infrastructure of the county such as transport, emergency services and essential services. Severe weather will include the following;

- Dense Fog
- Heavy snow fall
- Heavy rain fall
- Gusty winds and storms

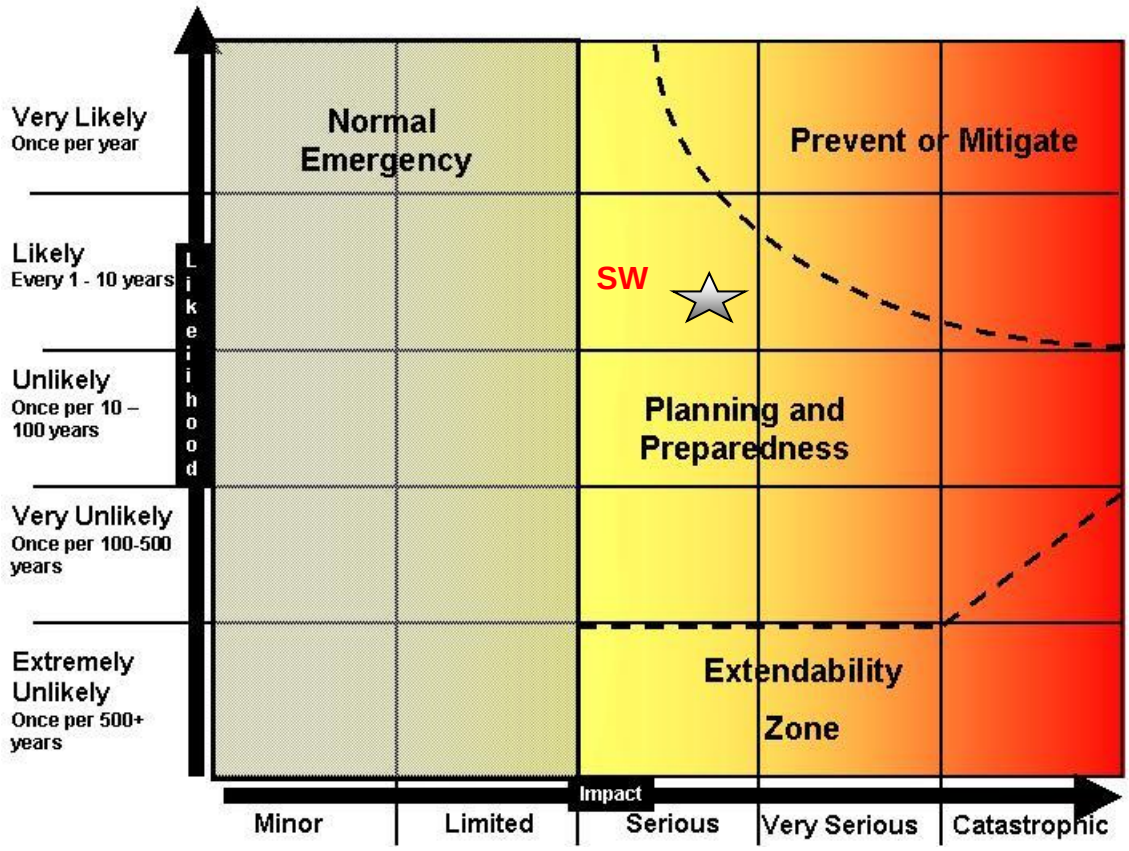
Key Historical Evidence

- 2005: Co. Meath. Mini Tornado in Clonee 100 homes damaged.
- 2006: Co. Donegal. Mini Tornado in Donegal Town.
- 2006: Co. Kildare. Dense fog on the motorway - a serious R.T.C. 1 killed.
- 2007: Mexico. Severe flooding, thousands homeless.
- 2009: South and West of Ireland. Severe flooding.
- 2010: Ireland nationwide: Heavy snow and ice.
- 2011: Ireland nationwide: Heavy snow and ice.
- 2017: Hurricane Ophelia. Ireland nationwide: Hurricane.
- 2018: Storm Emma. Ireland nationwide: Heavy snow and ice.

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Severe Weather	Serious	Serious	Serious	Serious	Rapid	Likely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as SW, will be placed in the planning and preparedness zone, as the worst-case impact is classified serious.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

- Weather warnings from Met Éireann.
- Increase in Public awareness with campaigns such as 'Be Winter Ready'.
- Monaghan County Council Severe Weather Plan in place.
- Monaghan County Council sub plans in place to deal with severe weather events.
- Appointment and deployment of Severe Weather Assessment Team (SWAT).
- In compliance with Monaghan County Council HSP53 (Emergency Preparedness & Response to Storm Procedures) a severe weather and flood liaison manger appointed.

Risk management approach: Prevention / Control / Mitigation measures Required

- No new procedures required

Flooding	
HAZARD CATEGORY	**SUB-CATEGORY**
Natural	Meteorological
HAZARD DESCRIPTION	**HAZARD LOCATION**
Flooding	Anywhere within the Co. Monaghan Boundary
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

Heavy rain across region resulting in flooding inland along primary road routes, town centres and other populated areas

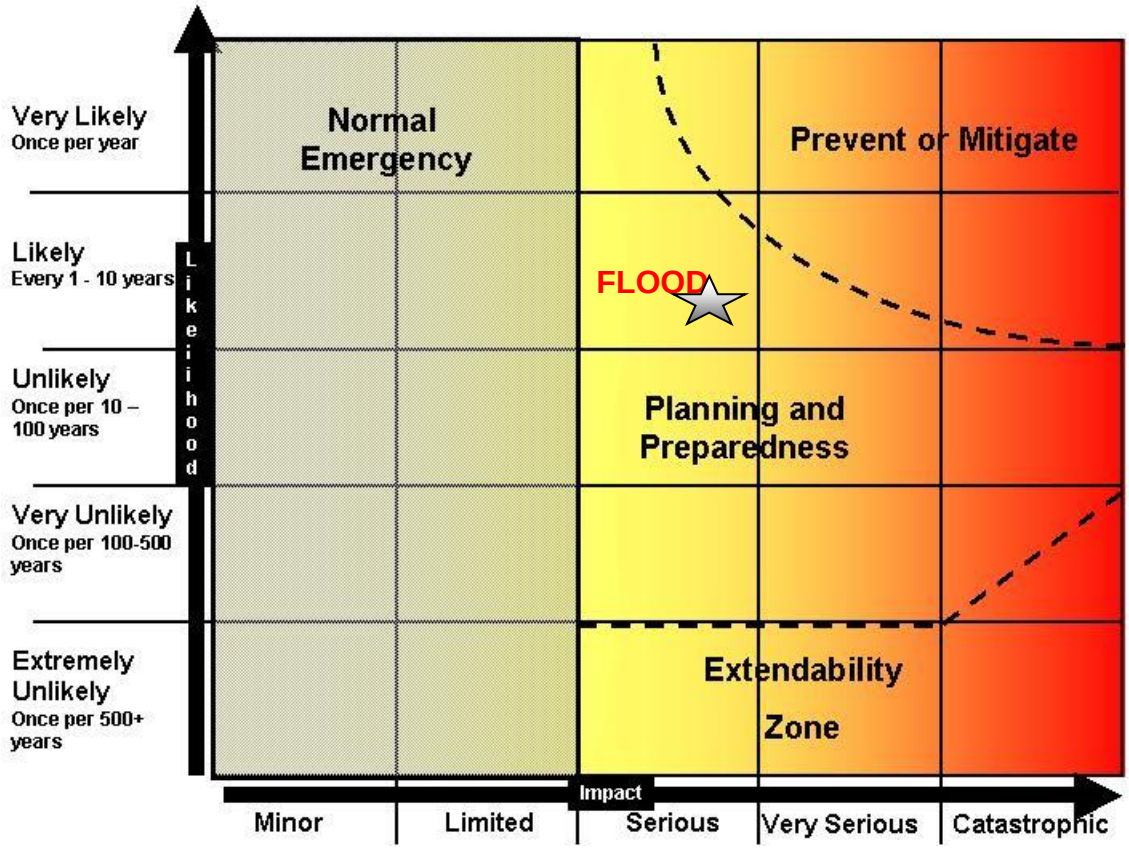
Key Historical Evidence

- 1987: Blackwater river, Co. Monaghan
- 2004: Drogheda. Flood event
- 2005: Derry. Flood Event:
- 2007: England. Flood Event:
- 2008: Carlow & Dublin
- 2009: Nationwide Ireland
- 2010: Nationwide Ireland
- 2011: Monaghan Town, Ballybay October
- 2015: Flooding North Monaghan.
- 2016: Flooding North Monaghan.
- 2020: Storm Frank: Flooding North Monaghan.

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Flooding	Serious	Serious	Serious	Serious	Hours	Likely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as FLOOD, will be placed in the planning and preparedness zone, as the worst-case impact is classified serious.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

The control measures in place are as mentioned before with the addition of

- Information from the government website OPW is can be obtained on what to do in the event of a flood. http://www.flooding.ie/en/
- Met Éireann issue warning.
- Guidelines to prepare for flooding can be obtained from the Office of Public Works.
- Water awareness and flood first responder training is rolled out to responding personnel annually.
- All Fire Units in the County have Equipment & PPE provided for fire personnel.
- Additional Flood equipment is available in the Golf Unit at Monaghan Fire Station.
- Increase in Public awareness with campaigns such as 'Be Winter Ready'.
- Monaghan County Council Severe Weather Plan 2020-2021.
- Appointment and deployment of Severe Weather Assessment Team (SWAT).
- In compliance with Monaghan County Council HSP53 (Emergency Preparedness & Response to Storm Procedures) a severe weather and flood liaison manger appointed.

Risk management approach: Prevention / Control / Mitigation measures Required

- No new procedures required

Forest Fire / Large Gorse Fire	
HAZARD CATEGORY	**SUB-CATEGORY**
Natural	Meteorological
HAZARD DESCRIPTION	**HAZARD LOCATION**
Forest Fire / Large Gorse Fire	Anywhere within the Co. Monaghan Boundary e.g. Slieve Beagh
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

Heavy rain across region resulting in flooding inland along primary road routes, town centres and other populated areas

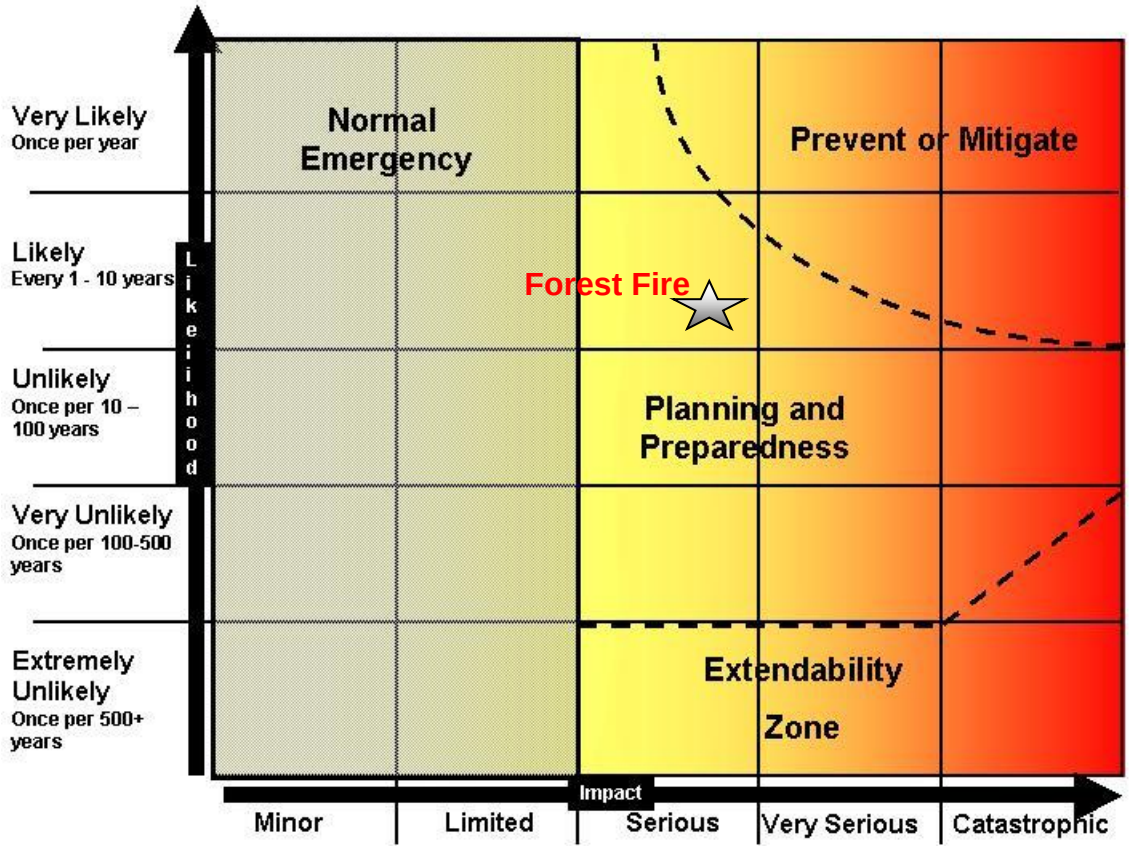
Key Historical Evidence

- 2003: Donegal.
- 2006: Portugal & Spain.
- 2008: Greece.
- 2009: Melbourne.
- 2011: Donegal, Monaghan and Northern Ireland large gorse fires.
- 2017: Monaghan: Drought and controlled burning measures in place.
- 2018: Mid-Monaghan: Gorse fires.
- 2020: Monaghan: Drought and controlled burning measures in place.
- 2021: Monaghan: Large Gorse Fire in Bragan

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Forest Fire	Serious	Serious	Serious	Serious	Hours	Likely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as FOREST FIRE, will be placed in the planning and preparedness zone, as the worst-case impact is classified serious.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

The control measures in place are as mentioned before with the addition of:

- Governing body Coillte regulate and control forestry.
- Pre-fire plans should be in place for forests over 10 hectares.
- Standard Operating Guidance for fire service issued by NDFEP on fighting fires in rural areas.
- MOU to be created with NIFRS along Bragan region.
- Develop pre-fire plans with relevant forestry agencies and owners to establish access routes, water supplies and salvage priorities.
- Regular liaisons with Coillte.
- Wildfire Management Plan being developed for Bragan and Sliabh Beagh areas.

Risk management approach: Prevention / Control / Mitigation measures Required

- Standard Operating Guidance for fire service to be issued by NDFEP on Wildland Fire Fighting and the use of helicopters
- Implementation of Wildfire Management Plan developed for Bragan and Sliabh Beagh areas.

Aviation Incident	
HAZARD CATEGORY	**SUB-CATEGORY**
Transportation	Aviation
HAZARD DESCRIPTION	**HAZARD LOCATION**
Aircraft collision / explosion mid-flight / emergency landing	Anywhere within Co. Monaghan
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

County Monaghan does not have an airport; however, the county is closely situated to Dublin Airport. Flight paths over Monaghan are of a regular occurrence. Depending on wind conditions the line of flight June change. In addition to this, helicopter usage has increased dramatically in Co. Monaghan.

Scenario

A mid-air collision in Irish aerospace over the functional area of County Monaghan results in a passenger Aircraft falling to the ground over a populated area resulting in widespread loss of life & infrastructure damage.

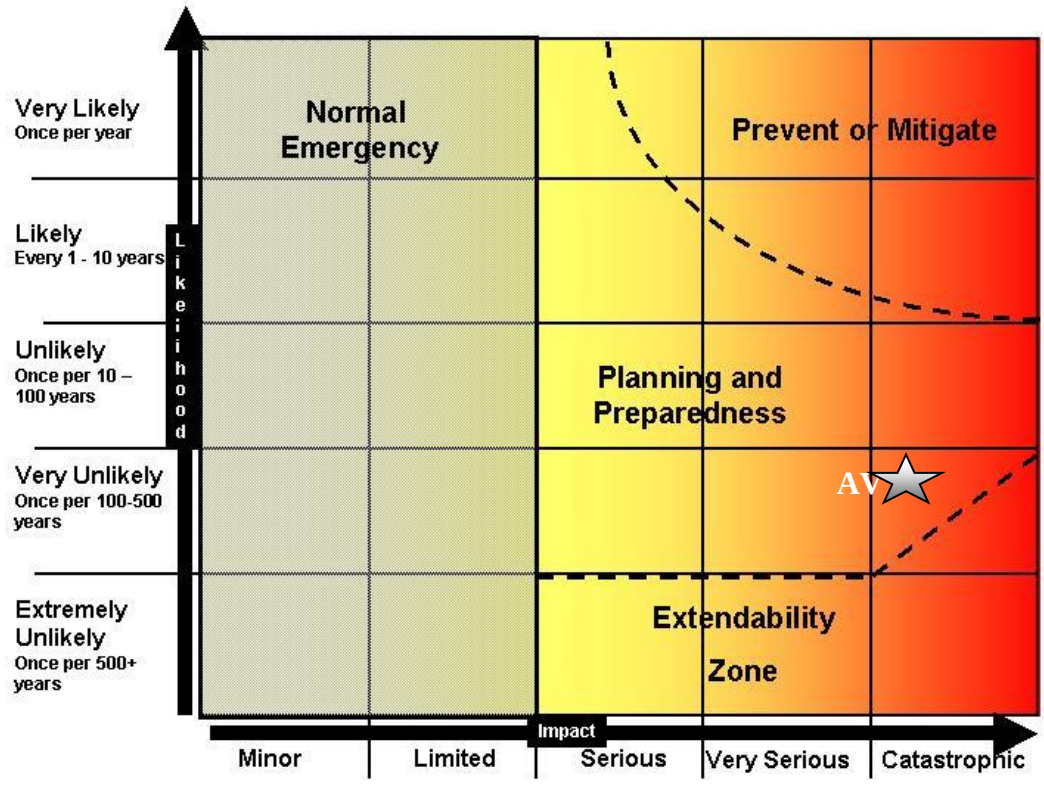
Key Historical Evidence

- 1954: Shannon, KLM Flight 633 Amsterdam – New York. 28 Killed.
- 1968: St. Georges channel of Co. Wexford, Air Lingus Flight 712 Cork – London. 61 Killed.
- 1985: Southern Irish Coast, Air India Flight 182 Montreal – Delhi. 329 Killed.
- 1989: Kegworth, England, British Midland Flight 092 London – Belfast. 47 killed and 79 injured.
- 2004: EI-BYJ Bell 206B helicopter crash, Inniskeen. No injuries.
- 2007: Aerport na Minna, Indreabhán, Connemara.
- 2009: Atlantic Ocean, Air France Flight 447. 228 killed.
- 2017: Atlantic Ocean, Irish Coast Guard. 4 killed.

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Mechanical Failure Midair	Catastrophic	Serious	Serious	Very Serious	Rapid	Very Unlikely
Midair collision	Catastrophic	Serious	Serious	Very Serious	Point of Impact	Very Unlikely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as AV will be placed in the planning and preparedness zone, as the worst case impact is classified Catastrophic.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

- Certification: Civil Aircraft have to be certified by the Civil Aviation Authority.
- European Aviation Safety Authority provides regulatory advice.
- Irish Aviation Authority
- Navigation aids used such as GPS to assist Pilots in flying, with inertial Navigation system (INS) for backup.
- Irish Aviation Authority Act 1993
- Irish Aviation Authority (IAA) governs air safety within Ireland.

Risk management approach: Prevention / Control / Mitigation measures in Place

- Drills and training to be carried out to prepare for aviation incident.

Multiple Vehicle Road Traffic Collisions (R.T.C)	
HAZARD CATEGORY	**SUB-CATEGORY**
Transportation	Road
HAZARD DESCRIPTION	**HAZARD LOCATION**
Multiple vehicle R.T.C.	Any Primary & secondary road in Co. Monaghan e.g. N2, N12, N53 or N54
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

Scenario

A mutiple vechile R.T.C involving heavy goods vechiles, commerical and passenger vechiles.

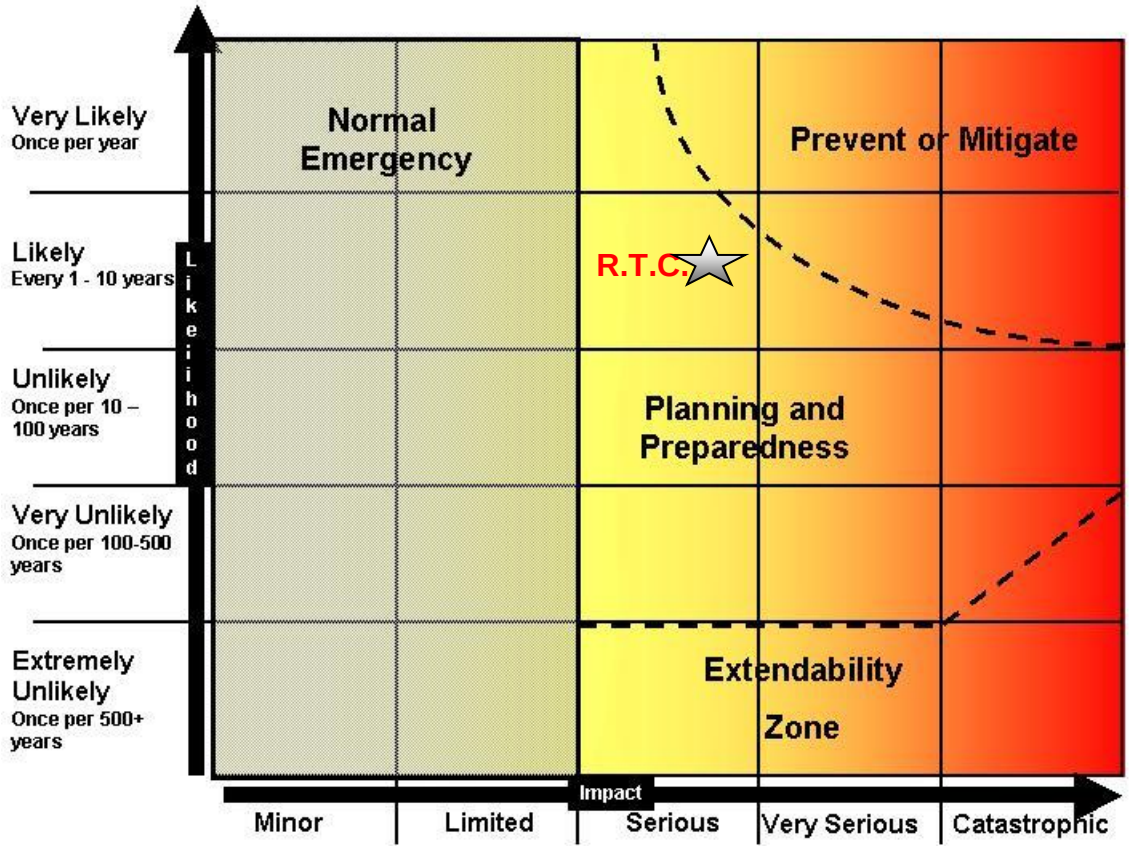
Key Historical Evidence

- 1989: New South Wales, Australia. Bus crash. 21 Killed and 22 injured.
- 2004: Konginkangas, Finland. Bus crash. 23 Killed and 15 injured.
- 2004: Wellington Quay, Dublin. To C.I.E. buses collide. 5 killed.
- 2005: Kenstown, Co. Meath. School bus crash. 5 killed.
- 2005: India: R.T.C. between bus and gasoline truck. 30+ Killed.
- 2007: Motorway M1, Co. Kildare. Multiple R.T.C.. 1 Killed.
- 2010: N2, Carrickmacross by-pass. 2 car collision. 3 killed.
- 2016: N2, Castleblayney - Carrickmacross. 2 HGV collision. 2 killed.
- 2017: N2, Castleblayney – Monaghan. Bus & Multiple HGV collision. 0 deaths.
- 2019: N2, Castleblayney – Monaghan. Bus & Oil Tanker collision. 0 deaths.

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Transportation Multiple Vechicle collison	Serious	Minor	Minor	Minor	Point of collision	Likely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as R.T.C. will be placed in the planning and preparedness zone, as the worst case impact is classified serious.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

- Irish rules of the road.
- Fire Service trained in R.T.C. techniques.
- P.D.A.'s for R.T.C.
- Regular communication between Garda & Monaghan County Council
- Road Safety officer appointed in Monaghan County Council.
- Exercises on primary routes between M.F.S., A.G.S., H.S.E. & Civil Defence
- Standard Operating Guidance for fire service issued by NDFEP for road based incidents

Primary & Secondary roads

- Speed limits enforced on primary and secondary routes, 100km/hr and 80km/hr.
- Speed limits in built up areas are reduced to 30km/hr, 50km/hr and 60km/hr.
- Speed cameras in operation, both fixed and Garda mobile points present.
- Traffic diversions in place for major incidents managed by Gardai.

Risk management approach: Prevention / Control / Mitigation measures in Place

- No new procedures developed.

Road Traffic Collisions (R.T.C) involving HAZ-MAT	
HAZARD CATEGORY	**SUB-CATEGORY**
Transportation	Road
HAZARD DESCRIPTION	**HAZARD LOCATION**
Serious Hazmat e.g. Washed Diesel, Chlorine spill, Ammonia leak etc.	Motorway and/or Primary & secondary road ways
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

Scenario

A H.G.V. collides and crashes with oncoming traffic. The H.G.V. is carrying an unkown chemcial. This chemical could be;

- Toxic
- Flammable
- Irritant
- Radioactive

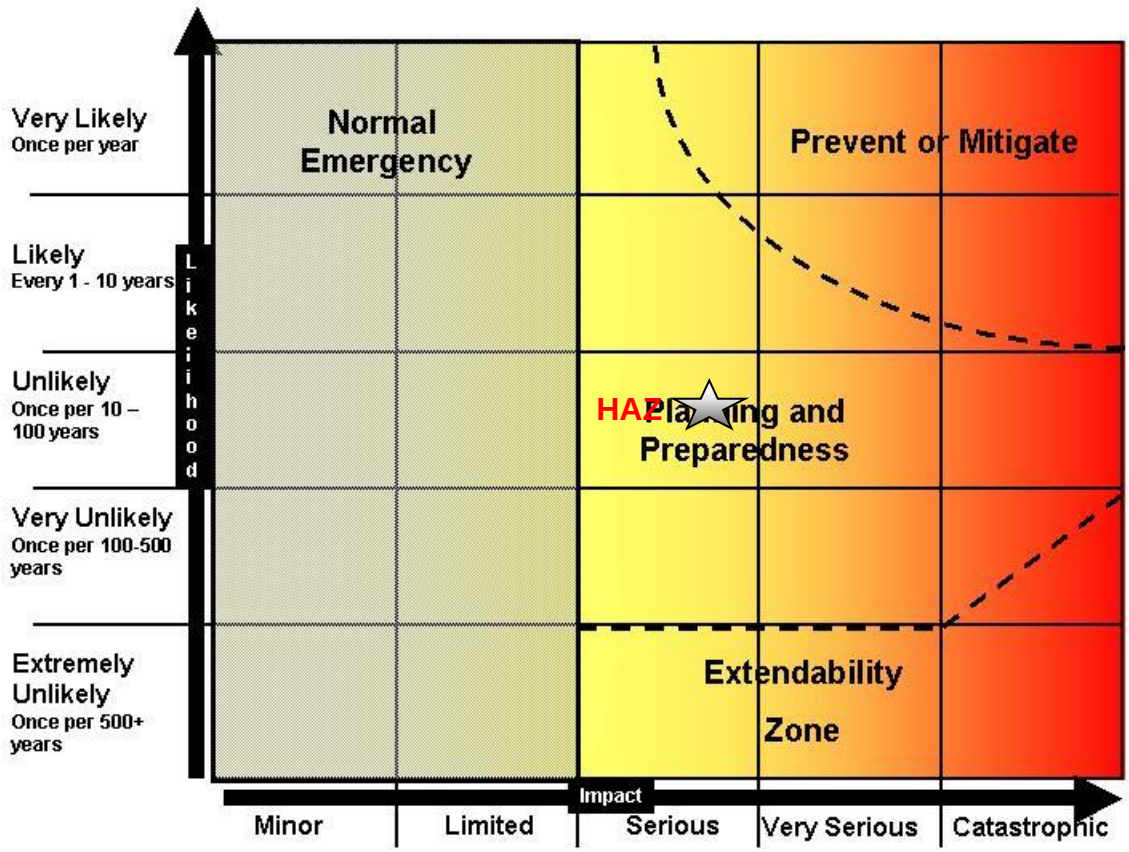
Key Historical Evidence

- 1998: Sao Paulo, Brazil. Tanker explodes on Motorway. 50 Killed.
- 2002: Illinois, U.S.A. Major chemical spill resulting in lengthy delays and road closure
- 2005: M25, London. Acetylene incident resulting in lengthy delays and road closure.

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Transportation involving Serious Hazmat	Serious	Serious	Minor	Serious	Point of collision	Unlikely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as HAZ will be placed in the planning and preparedness zone, as the worst case impact is classified serious.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

- Hazardous substance control governed by Health & Safety Authority
- Introduction of R.E.A.C.H. new European Community Regulation on chemicals and their safe use (EC 1907/2006).
- All Fire Units in County trained in Haz-mat & PPE provided for fire personnel.
- Additional Decontamination, PPE & Equipment available in the Golf Unit at Monaghan Fire Station.
- Gas monitors in all Fire Stations.
- If required a Regional decontamination Unit can be mobilised. This is based at Drogheda Fire Service.
- Regular exercises on primary routes between M.F.S., A.G.S., H.S.E. & Civil Defence
- Regular patrols / check points by Custom & Excise and Garda
- Standard Operating Guidance for fire service issued by NDFEP for road-based incidents & HAZMAT incidents
- Inter-agency Cross Border Hazmat exercise (Exercise Toreann) carried out along border in 2019

Primary & Secondary roads

- Major spillages shall be dealt with by a specialist chemical contractor and emergency services.
- Minor spillages shall be dealt with by the County Council road section.
- Standard Operating Guidance for fire service issued by NDFEP

Risk management approach: Prevention / Control / Mitigation measures Required

- Cross Border exercise carried out along border counties (NIFRS and Monaghan Fire Authority)

Industrial Accident	
HAZARD CATEGORY	**SUB-CATEGORY**
Technological	Industrial Accident
HAZARD DESCRIPTION	**HAZARD LOCATION**
Fire / HAZMAT / Explosion	Any Industrial premises within County Monaghan
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

Industrial fire

A large industrial unit catches fire resulting in wide spread structural damage. Chemical accidents are unanticipated releases, explosions, fires and other harmful incidents involving toxic and hazardous materials.

Industrial HAZMAT

A chemical release from an industrial plant resulting in a cloud of vapor drifting towards a populated area. There are many chemicals that are used in this area, some of which and their uses are listed below;

- Ammonia: Used in industrial plants mainly for refrigeration purposes.
- Chlorine: Used in solvent manufacture, and water purification

Industrial Explosion

An Explosion occurring on Industrial premises. Explosions June be as a result of;

- Dust Explosion within silos.
- Gas leak e.g. Natural gas, Acetylene, Pentane, L.P.G. release
- Petrochemical explosion
- Other flammable substance

Key Historical Evidence

Industrial Fire / Explosion

- 2003: Tarbert, Co. Kerry. Explosion at E.S.B. station. 2 killed.
- 2004: Scotland. Plastic factory. 9 killed and 40 injured.
- 2005: Dundalk, Co. Monaghan. Crum Rubber tyre recycling plant. 7 injured.
- 2006: Cork city. Disused mill R & H Hall mill fire.
- 2007: Ennis, Co. Clare. Large retail unit fire, 20 homes evacuated.
- 2007: Atherstone on Stour, England. Large Warehouse fire. 4 Killed
- 2007: Bray, Co. Wicklow. Industrial Units. 2 Killed.
- 2009: Dublin, Guinness Brewery.
- 2017: Albany Home Decor, Monaghan.
- 2017: Cornacrieve Mushrooms, Emyvale – 1 Killed.
- 2019: Shabra Plastics, Castleblayney – 1 Killed.
- 2022: Christoff Kitchens, Rockmarshall, Co. Louth. No injuries.

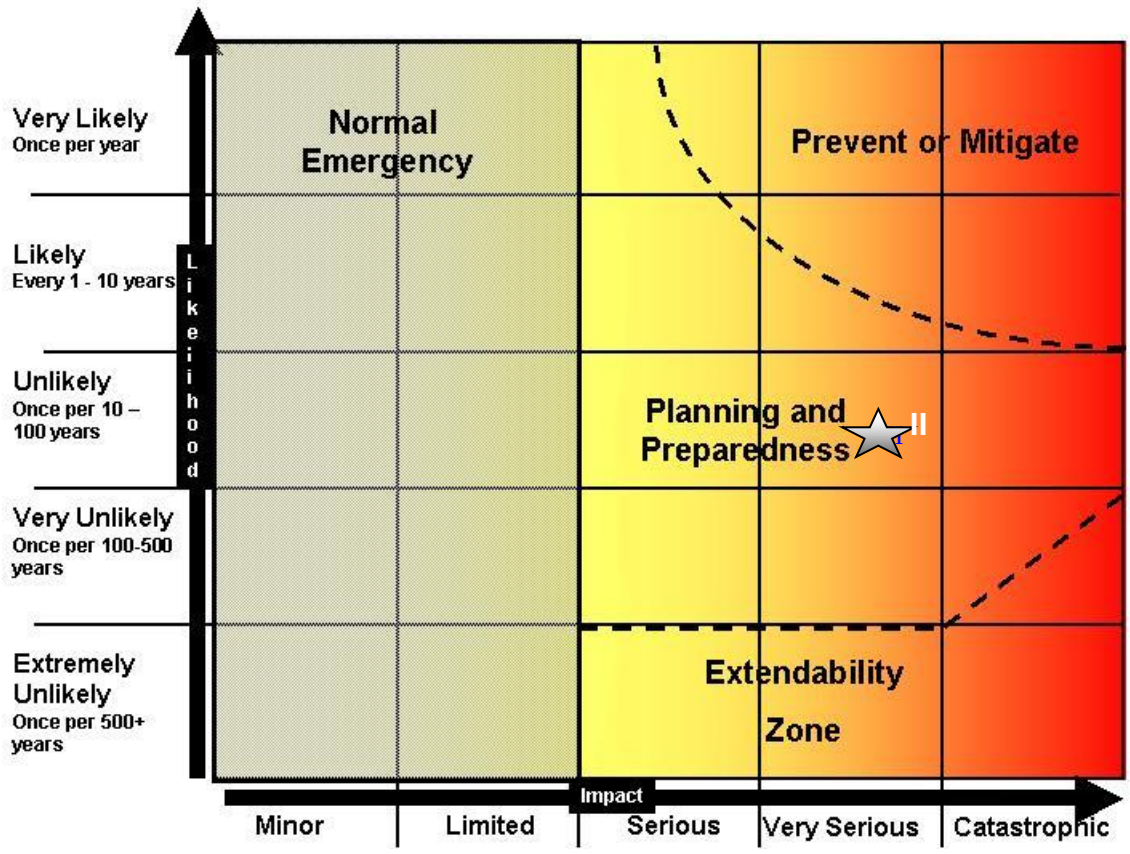
Industrial HAZMAT

- 1984: Bhopal, India: Explosion at pesticide factory. 2000 killed and >50,000 injured.
- 1991: Bangladesh, Dhaka. An explosion in a factory resulting in ammonia leakage. 22 Killed.
- 1993: Westlake, U.S.A. Ammonia leak due to explosion in chemical plant. 63 Killed
- 2022: Ammonia leak due to pipe corrosion. Lough Egish Food Park, Americold. No injuries.

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Industrial Fire	Serious	Limited	Limited	Limited	Rapid	Unlikely
Industrial Hazmat	Very Serious	Limited	Limited	Serious	Rapid	Unlikely
Industrial Explosion	Serious	Limited	Limited	Serious	Rapid	Unlikely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as II will be placed in the planning and preparedness zone, as the worst case impact is classified Very serious.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

- Safety, Health and Welfare Act 2005.
- Safe operating practices.
- Regular safety checks.
- Fire detection and/or fire suppression systems in place in all industrial premises. Some premises will have gas detection in place.
- Risk management carried out by companies.
- Pre-fire planning conducted by Monaghan Fire Services.
- Monaghan Fire Service trained to deal with chemical incidents.
- Companies that have chemicals on-site must adhere and operate under the ATEX directive 94/9/EC.
- Staff training and education of Hazardous substances.
- Standard Operating Guidance for fire service issued by NDFEP for industrial fires and HAZMAT incidents
- Firefighter CPC (hazmat awareness) training ~~2013~~
- All Fire Units in the County have Emergency Hazmat kits & PPE provided for fire personnel.
- Additional Decontamination, PPE & Equipment available in the Golf Unit at Monaghan Fire Station.
- Gas monitors in all stations.

Risk management approach: Prevention / Control / Mitigation measures Required

- Increase pre-fire planning throughout Co. Monaghan.

Cyber Attack	
HAZARD CATEGORY	**SUB-CATEGORY**
Technological	Cyber Attack
HAZARD DESCRIPTION	**HAZARD LOCATION**
IT System Attack	Monaghan County Council IT systems
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

IT System Attack

A breech of data protection, theft/ loss of information, compromise system integrity, disruptions of essential services. Inability to access information. Catastrophic costs to retain operational functioning.

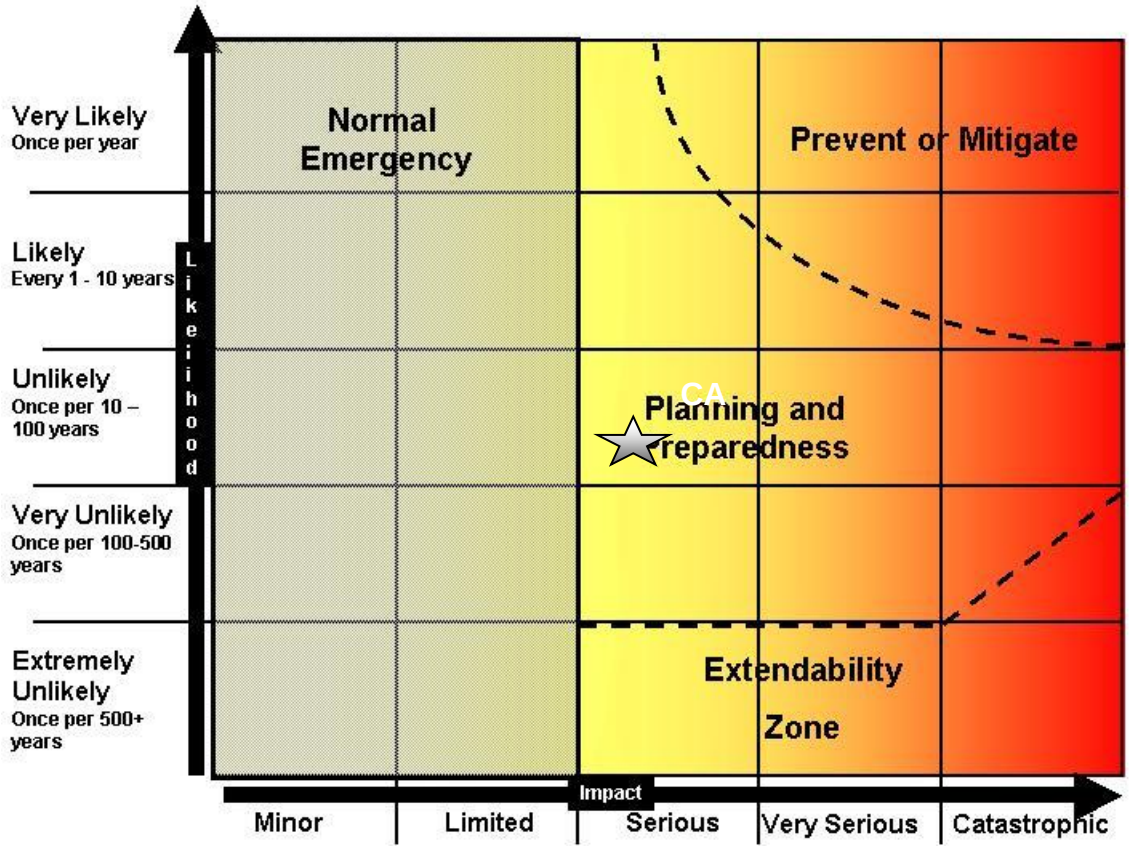
Key Historical Evidence

- 2021: Health Service Executive. Cyber-attack on the Irish Health service.

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Cyber Attack	Serious	Limited	Serious	Serious	Rapid	Unlikely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as CA will be placed in the planning and preparedness zone, as the worst-case impact is classified serious.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

- See 'IT Section' of Monaghan County Council Corporate Risk Register

Risk management approach: Prevention / Control / Mitigation measures Required

- See 'IT Section' of Monaghan County Council Corporate Risk Register

Place of Assembly Incident	
HAZARD CATEGORY	**SUB-CATEGORY**
Technological	Large Building Incident
HAZARD DESCRIPTION	**HAZARD LOCATION**
Building Collapse / Fire in a large building / Fire in high rise	Shopping centre / Public house / Hotel / Hospital etc
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

Scenario 1

A structural failure and/or fire resulting in a building collapse in a large public or High rise building resulting in wide spread panic, multiple injuries and possible death.

Key Historical Evidence

Building Collapse

- 1999: Cork City, Co. Cork. Large building collapse. I killed and 8 injured.
- 2001: New York. Twin Towers collapse & fire. 2,871 died.
- 2007: Queensgate, London. Large building collapse & fire.
- 2007: Dublin City, Co. Dublin. Stairway in National museum of Ireland collapses. 11 injured.
- 2021: Miami Florida. Apartment building collapsed. 98 people died.
- 2022: Changsha, China. Building collapse containing Flats & businesses. 53 died.

Large Building Fire

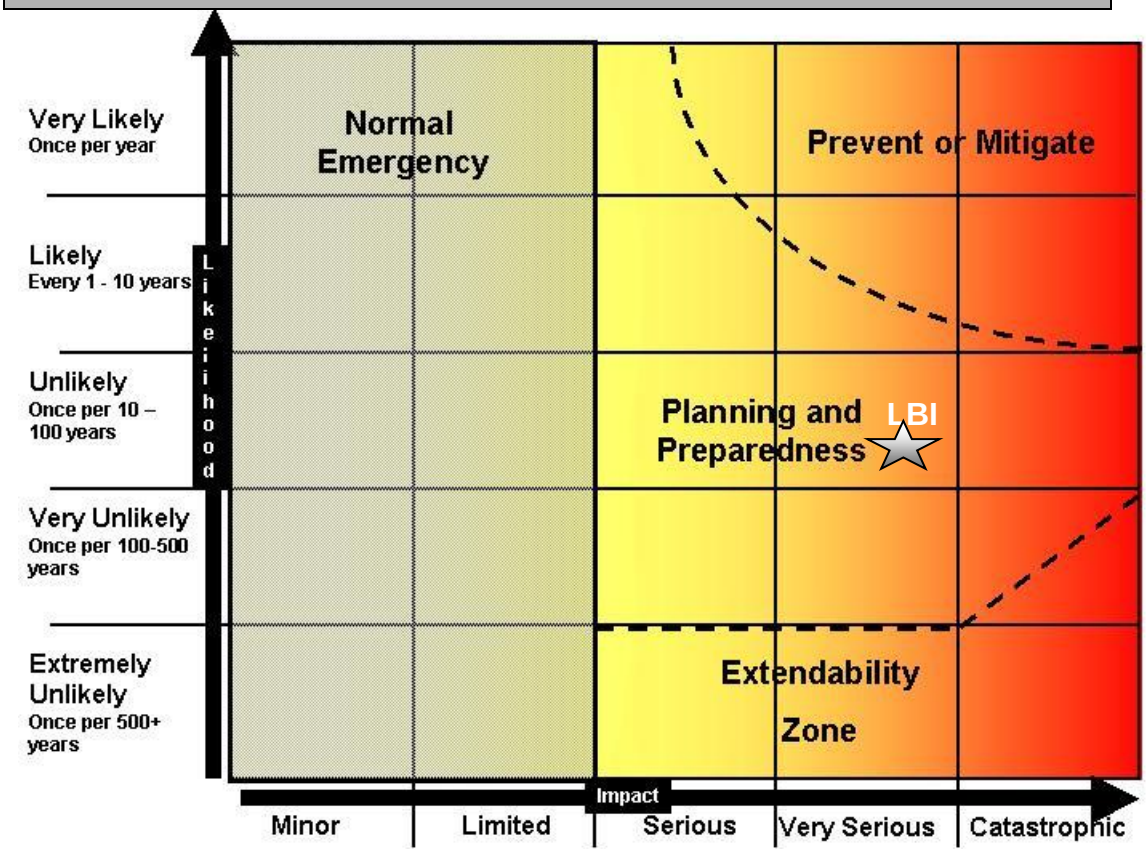
- 1981: Stardust, Co. Dublin. Large fire in nightclub. 48 killed.
- 1980: Bundoran, Co. Donegal. Hotel Fire. 10 killed.
- 1998: Gottenburg, Sweden. Halloween party in nightclub. 63 killed.
- 2001: Volendam, Holland. Café / Nightclub fire. 10 killed.
- 2001: Washington, USA. Pentagon. 125 killed.
- 2004: Disco Buenos Aries 194 killed.

- 2013: Rio Grande do Sul, Brazil 241 killed.

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Large building Fire	Very Serious	Minor	Limited	Limited	Rapid	Unlikely
Large building Collapse	Very Serious	Minor	Limited	Limited	Rapid	Unlikely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as LBI, will be placed in the planning and preparedness zone, as the worst case impact is classified very serious. It has been placed in the unlikely zone as there no cases of these events occurring locally in the last 100 years however, there have been 2 cases of large building fire nationally within the last 30years.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

- Fire Services Act, 1981
    - Inspections
    - Enforcement
    - Public assembly licensing
- Building Control Act 1990 – 2014 and the Building Control Regulations 1997 – 2021.
- Technical Guidance Document B - Fire Safety (2006) (Reprint 2020).
- British/ European standards for construction materials - Construction Products Regulations (CPR).
- Inspection of licensed premises / Renewal of Publican licensing on annual basis.
- Risk assessment carried out by management for Insurance purposes.
- Pre-fire planning conducted by Monaghan Fire Services.
- Familarisation visits by Fire Service personnel.
- Standard Operating Guidance for fire service issued by NDFEP for large building fires.
- Liaison with Regulatory Stakeholders e.g. HIQA, TUSLA.
- Community Fire Safety Initiatives/ advice
- During Performance Inspections (D.P.I) of places of assembly.

Risk management approach: Prevention / Control / Mitigation measures Required

- Continued emphasis on Fire Safety Management responsibilities of owners/ occupiers.

Water Contamination	
HAZARD CATEGORY	**SUB-CATEGORY**
Technological	Contamination
HAZARD DESCRIPTION	**HAZARD LOCATION**
Contamination of drinking water supply e.g. Cryptosporidiosis & other biological organisms	Monaghan County Council water supply
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)

Overview of Hazard

Scenario 1

Contamination of open sources, rivers and lakes within the area of County Monaghan. Water sources June be contaminated by;

- Cryptosporidium and/or biological organisms
- Oil
- Silage
- Milk
- Unknown Chemicals

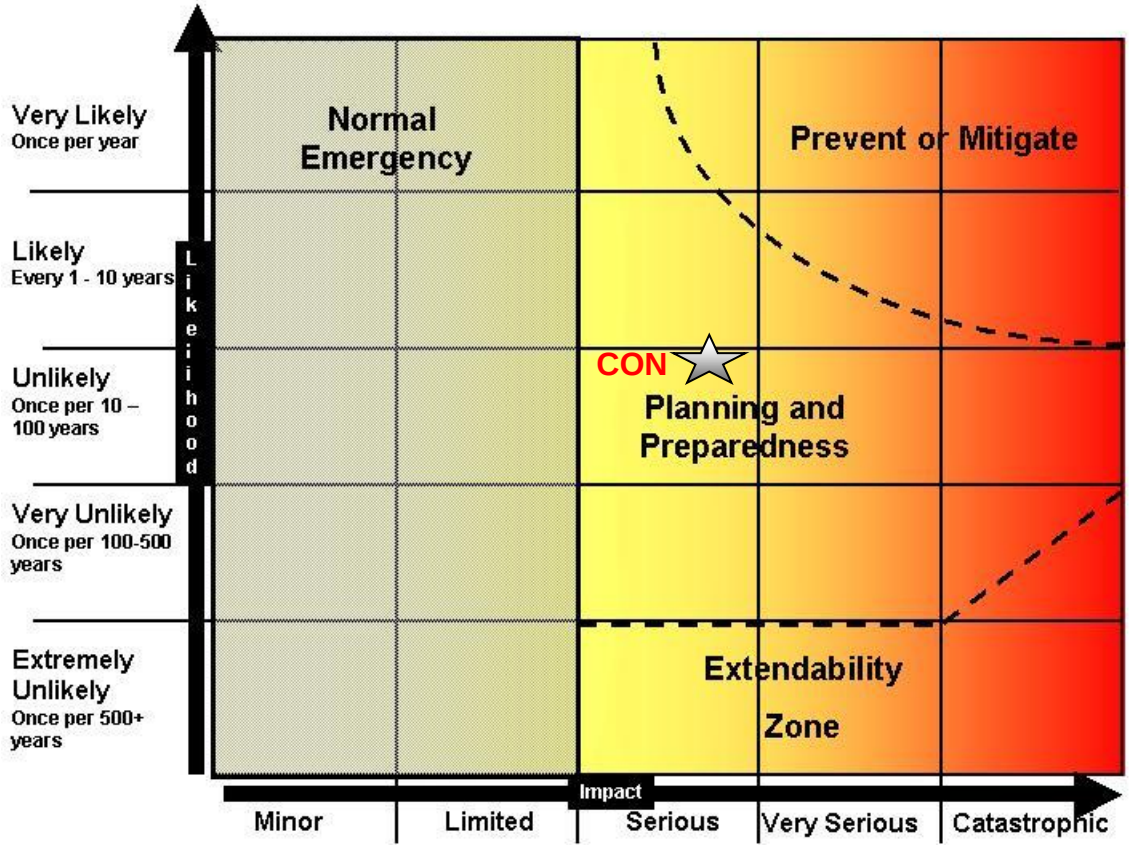
Key Historical Evidence

- June 2007 Galway City and County: Galway Local Authorities water scheme was found to have Cryptosporidium in it. Over 170 people contracted an illness as a result of drinking the water supply.
- August 2021 Gorey, County Wexford & Ballymore Eustace, County Kildare: 52 confirmed cases of illness and a number of hospital admissions.

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Contamination of drinking water supply	Limited	Serious	Limited	Serious	Moderate e.g. 1-2 weeks	Unlikely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as CON, will be placed in the planning and preparedness zone, as the worst-case impact is classified serious. It has been placed in the unlikely zone as there no cases of this occurring in Co. Monaghan.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

- Monaghan County Council has a duty under the EU Drinking Water Regulations 1988 to ensure that the quality of drinking water within the county meets certain standards.
- Monaghan County Council Drinking Water Incident Response Plan in place.
- Intensive monitoring of water supplies in the county is carried out by Monaghan County Council.
- Water treatment measures in place to ensure that water supply is suitable for human consumption.
- The water quality of all the major rivers in the County is monitored on an ongoing basis.
- Water Pollution Acts 1977-1990.
- Penalties and fines in place to deter individuals from polluting waters.

Risk management approach: Prevention / Control / Mitigation measures Required

- No new procedures required

Civil Disorder	
HAZARD CATEGORY	**SUB-CATEGORY**
Civil	Civil disorder
HAZARD DESCRIPTION	**HAZARD LOCATION**
Terrorism	Urban centre in Co. Monaghan
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

Scenario 1

No warning bomb explodes in a heavy populated area resulting in substantial loss of live and property.

Scenario 2

A terrorism attack involving a CCBRN agent.

Key Historical Evidence

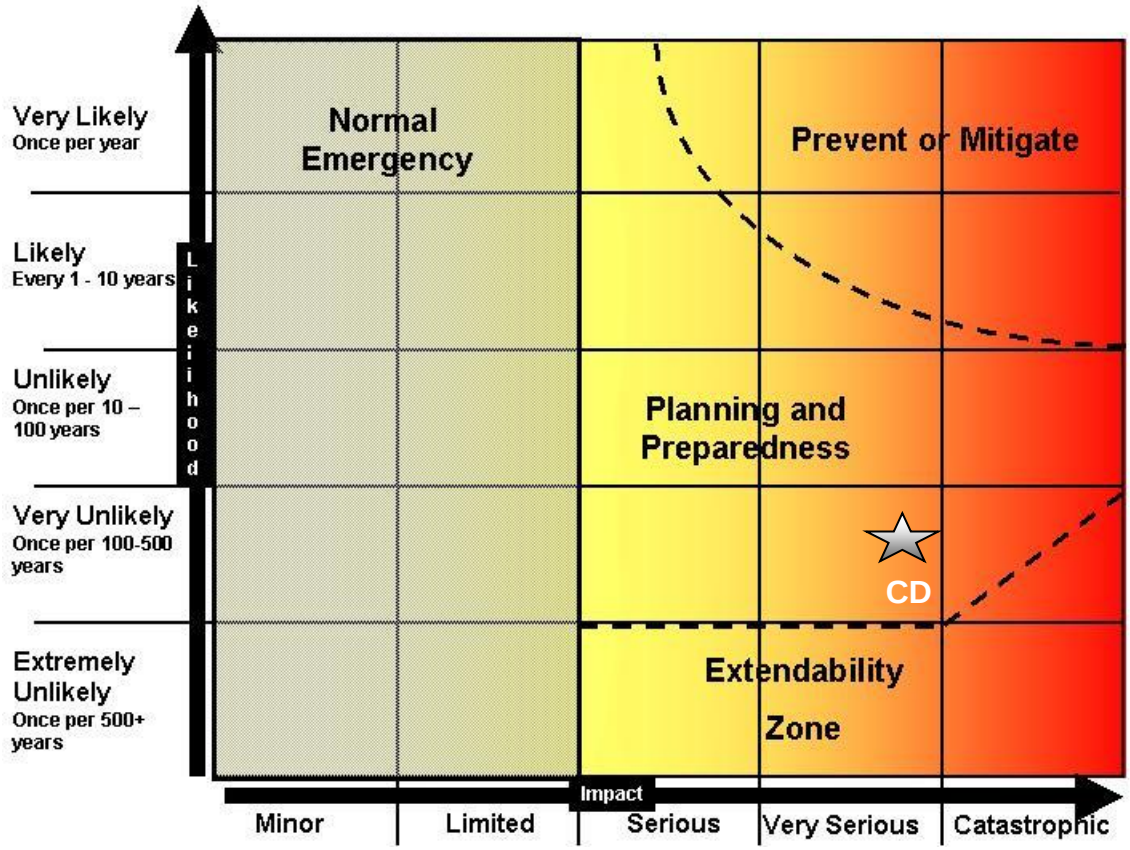
Terrorism

- 1974: Monaghan & Dublin bombings. 33 killed.
- 1998: Omagh. Car bomb. 32 killed.
- 2001: New York & Washington D.C, U.S.A. Attack on the WTC and the Pentagon. Heavy casualties.
- 2002: Bali. Publican bombing. Heavy casualties.
- 2004: Madrid, Spain. train bombings: 191 killed.
- 2010: Newry, Co. Down. Car bomb.
- 2011: Omagh car bomb. I police officer killed.
- 2015: Stade de France. 130 killed.
- 2017: Manchester bombing. 22 killed.

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Terrorism Bomb	Very Serious	Serious	Catastrophic	Catastrophic	Point of explosion	Very Unlikely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as CD1, will be placed in the planning and preparedness zone, as the worst-case impact is classified very serious.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

- An Garda Síochána check points and patrolling streets.
- An Garda Síochána intelligence into terrorist activity.
- Standard Operating Guidance for fire service issued by NDFEP on Civil disorders.
- Inter-agency Cross Border Hazmat exercise (Exercise Toreann) carried out along border in 2019

Risk management approach: Prevention / Control / Mitigation measures Required

- No new procedures developed.

Civil Disorder	
HAZARD CATEGORY	**SUB-CATEGORY**
Civil	Civil disorder
HAZARD DESCRIPTION	**HAZARD LOCATION**
Crowd control	Urban centre in Co. Monaghan
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

Scenario 1

Overcrowding of a public / sporting e.g. Ulster Final, event resulting in people becoming crushed and injured e.g. St. Tirernachs Park Clones

Scenario 2

Bomb warning in an urban area within Co. Monaghan resulting in widespread panic

Key Historical Evidence

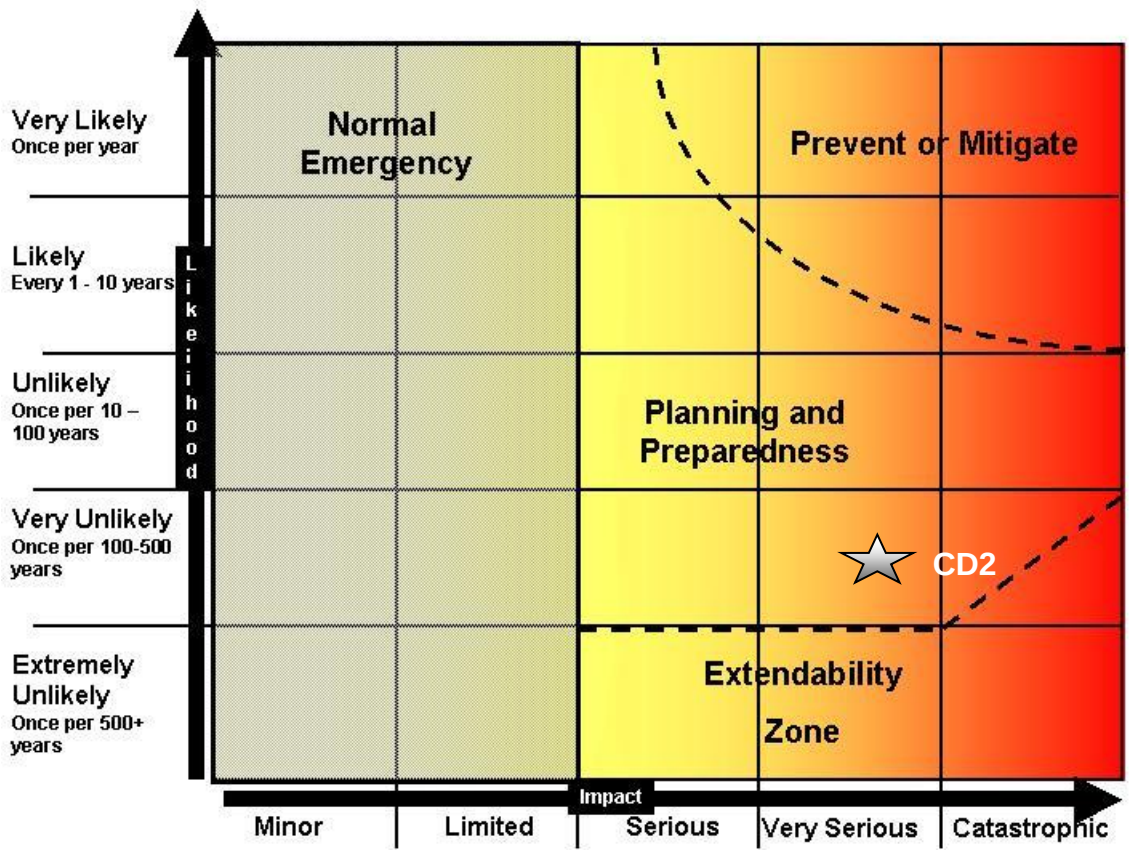
Overcrowding

- 1985: Hillsborough, England. Football overcrowding at ground. 96 killed.
- 1985: Heysel, Belgium. Football riots. 39 killed.
- 2006: Dublin, Love Ulster parade. 14 injured.
- 2008: Manchester, England. UEFA Cup final.
- 2019: Cookstown, Co. Tyrone. Crushing incident at disco. 3 killed.

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Overcrowding Crushing	Very Serious	Serious	Catastrophic	Catastrophic	Point of explosion	Very Unlikely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as CD2, will be placed in the planning and preparedness zone, as the worst-case impact is classified very serious.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

- Licensing of outdoor events.
- Efficient Management of events.
- Regular communication between An Garda Síochána, H.S.E. and the organizers of large public events & displays.
- Regular During Performance Inspection.
- Standard Operating Guidance for fire service issued by NDFEP on Civil disorders.
- During Performance Inspections (D.P.I) of places of assembly.

Risk management approach: Prevention / Control / Mitigation measures Required

- Inter-agency exercise involving overcrowding of a public / sporting e.g. Ulster Final, event resulting in people becoming crushed and injured e.g. St. Tirernachs Park Clones

Animal Diseases	
HAZARD CATEGORY	**SUB-CATEGORY**
Civil	Animal Disease
HAZARD DESCRIPTION	**HAZARD LOCATION**
Animal Disease	Monaghan Region / Nationwide
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

Foot-and-mouth disease is a highly contagious and sometimes fatal viral disease of cattle and pigs. It can also infect deer, goats, sheep, and other bovids with cloven hooves, Humans are very rarely affected.

Avian influenza is an infection caused by avian (bird) influenza (flu) viruses. These influenza viruses occur naturally among birds. Wild birds worldwide carry the viruses in their intestines, but usually do not get sick from them. However, avian influenza is very contagious among birds and can make some domesticated birds, including chickens, ducks, and turkeys, very sick and kill them. The spread of avian influenza viruses from one ill person to another has been reported very rarely, and has been limited, inefficient and unsustained.

Swine vesicular disease (SVD) is an acute, contagious viral disease of swine caused by the swine vesicular disease virus, an enterovirus. It is characterized by fever and vesicles with subsequent ulcers in the mouth and on the snout, feet, and teats.

Bluetongue disease is an insect-borne viral disease of ruminants, mainly sheep and less frequently of cattle, goats, buffalo, deer, dromedaries and antelope. There are no reports of human transmission.

Key Historical Evidence

Foot & Mouth

- UK 1967
- UK 2001
- UK 2007
- One case was recorded in Proleek, Co. Monaghan, Ireland 2001.

Avian Flu

- 2003: Asia, Africa, the Pacific, Europe and the Near East. avian influenza (H5N1) virus infections in animals.
- 2003: New York, U.S.A. H7N2 (Transmission to humans).
- 2004: Canada. H7N3 (Transmission to humans).
- 2020: Northern Ireland.
- 2021: North & South Monaghan, Ireland – 6 cases in separate locations.

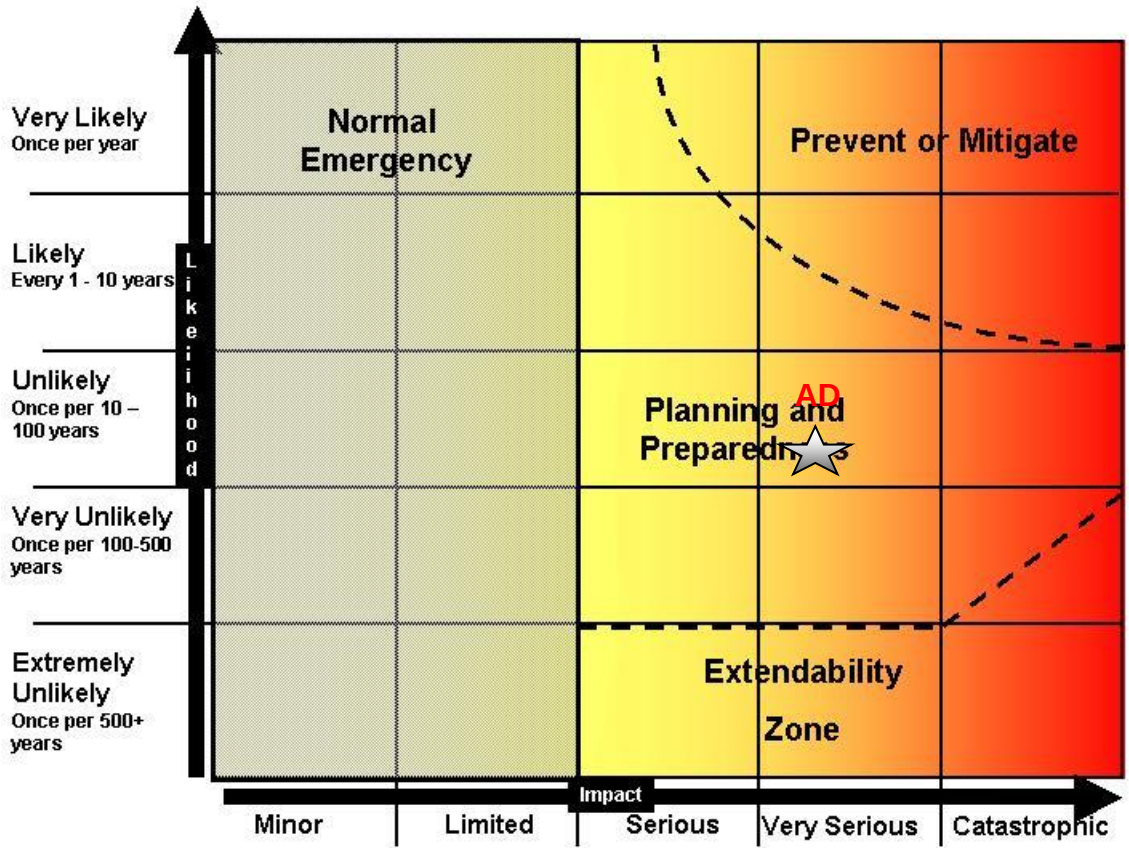
Blue Tongue

- 2006: Northern Europe
- 2007: Northern Europe & U.K.

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Animal diseases	Minor	Very Serious	Very Serious:	Very Serious	3-8 days	Unlikely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as AD, will be placed in the planning and preparedness zone, as the worst case impact is classified very serious. There has been one known case in Ireland in 2001 of Foot & Mouth and 6 outbreaks of the Avian Flu in 2022.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

Foot & Mouth

- Ban on import or beef from infected area.
- Ban on transport of livestock
- A Foot and Mouth Disease – Operations Manual and Contingency Plan is in place
- Government adverts
- M.C.C. employs a full time Veterinary inspector
- M.C.C. and Civil Defence will provide support in decontamination of infected area(s)

Avian Flu

- Early warning system for unusual mortalities in wild birds in place with.
- A ban on the collection of poultry markets and other events.
- A ban on the importation of captive birds and pet birds from outside the EU
- Publicity and Awareness Campaign
- Advice provided and updated on the Department's website.
- Participation by DAF on Government Taskforce on Emergency Planning.
- A ban on the importation of live poultry, unprocessed poultry products and feathers from affected countries or, in certain cases, those regions of affected countries that are at risk.
- Human Flu vaccination offered to all responding personnel.
- Protocols in place to gas bird houses where required.
- Contingency Plans can be found on the government website http://www.agriculture.gov.ie/animal_health/avian_influenza/contingency/ContingencyMeasuresforAvianInfluenza.doc

Risk management approach: Prevention / Control / Mitigation measures Required

- No new procedures required

Pandemic Flu	
HAZARD CATEGORY	**SUB-CATEGORY**
Civil	Epidemics and Pandemic
HAZARD DESCRIPTION	**HAZARD LOCATION**
Human Influenza	Nationwide
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

Pandemic flu affecting humans June occur due to the emergence of a new flu virus which is markedly different from recently circulating strains. It could happen if (a) avian flu combines with 'ordinary' flu; (b) avian flu virus mutates and you get a completely new flu strain that can be transmitted directly from one person to another or (c) a new flu virus emerges from circulating strains.

Few - if any - people will have any immunity to the new virus. This allows it to spread widely, easily and to cause more serious illness.

Each pandemic is different and, until the virus starts circulating, it is impossible to predict its full effects.

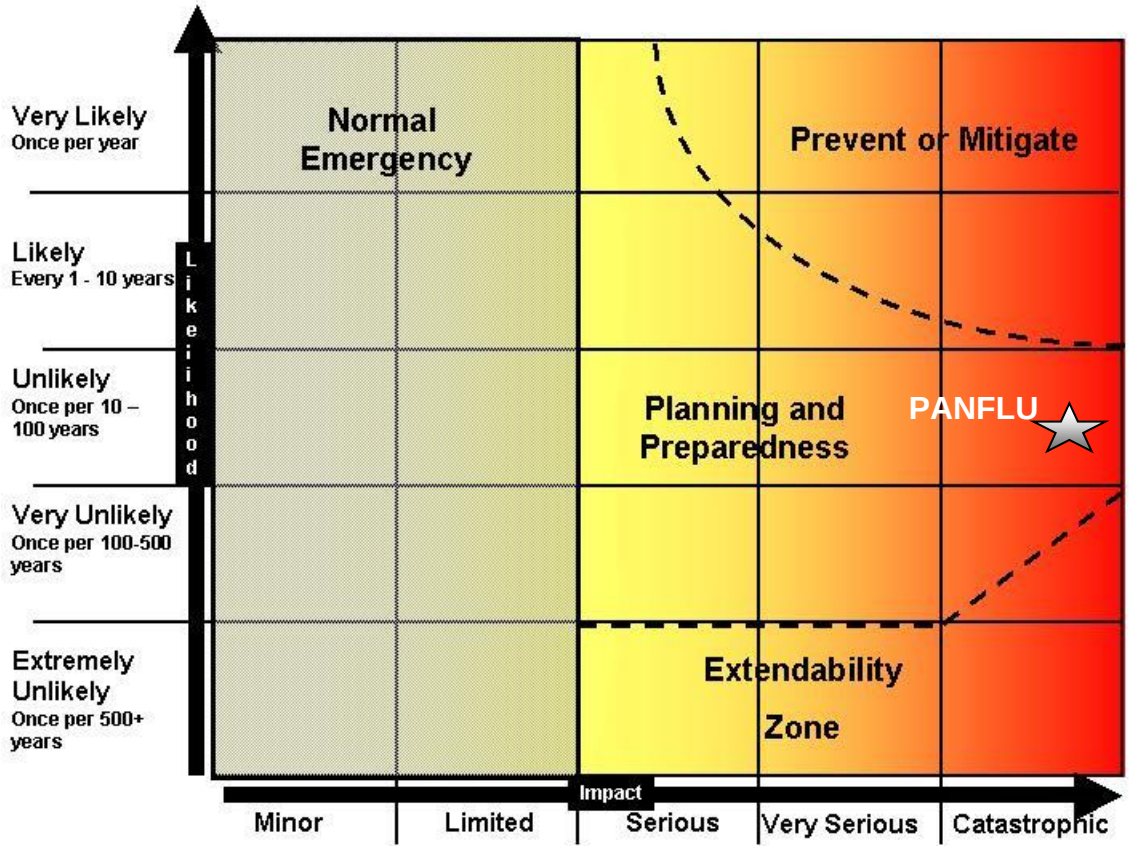
Key Historical Evidence

- 1890 Russian Flu: 1million.
- 1918 Spanish flu: 50 million deaths worldwide.
- 1957 Asian Flu: 1.5 million deaths.
- 1968 Hong Kong Flu: 1 million deaths.
- 2019 Coronavirus (SARS-CoV-2): 6.29 million deaths to date.
- 2022 Monkeypox: No deaths to date

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Pandemic Flu	Catastrophic	Catastrophic	Catastrophic	Catastrophic	Immediate	Likely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as PANFLU, will be placed in the planning and preparedness zone, as the worst-case impact is classified Catastrophic. There have been approximately 1.56 million cases in Ireland since 2020 and approximately 7,304 deaths.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

National Pandemic Influenza Plan

The Health Service Executive (HSE) together with the Department of Health and Children published the National Pandemic Influenza Plan and Pandemic Influenza Preparedness for Ireland.

The purpose of the National Pandemic Influenza Plan is to limit the effects of a potential pandemic and to:

- Inform the public about pandemic influenza.
- Explain what the Government and the health services are doing to prepare for a possible pandemic.
- Give information on what members of the public need to do if there is a pandemic.

This plan is based on recommendations from the World Health Organization and the guidance of the Expert group set up by the Department of Health and Children and the HSE to advice on planning for a pandemic.

Risk management approach: Prevention / Control / Mitigation measures Required

- Updated National protocols.

War +/ or Conflict	
HAZARD CATEGORY	**SUB-CATEGORY**
Civil	War +/or Conflict
HAZARD DESCRIPTION	**HAZARD LOCATION**
Displaced/ dispersed people	Nationwide
DATE:	**REVIEW DATE**
June 2022	June 2023 (subject to any significant changes)
Overview of Hazard	

Displaced/ dispersed people

An excessively large number of people can be displaced from their homes/ Countries as a direct result of an invasion to their Country, causing them to flee and seek refuge in other Countries. Hazards include over-population, insufficient resources, social unrest.

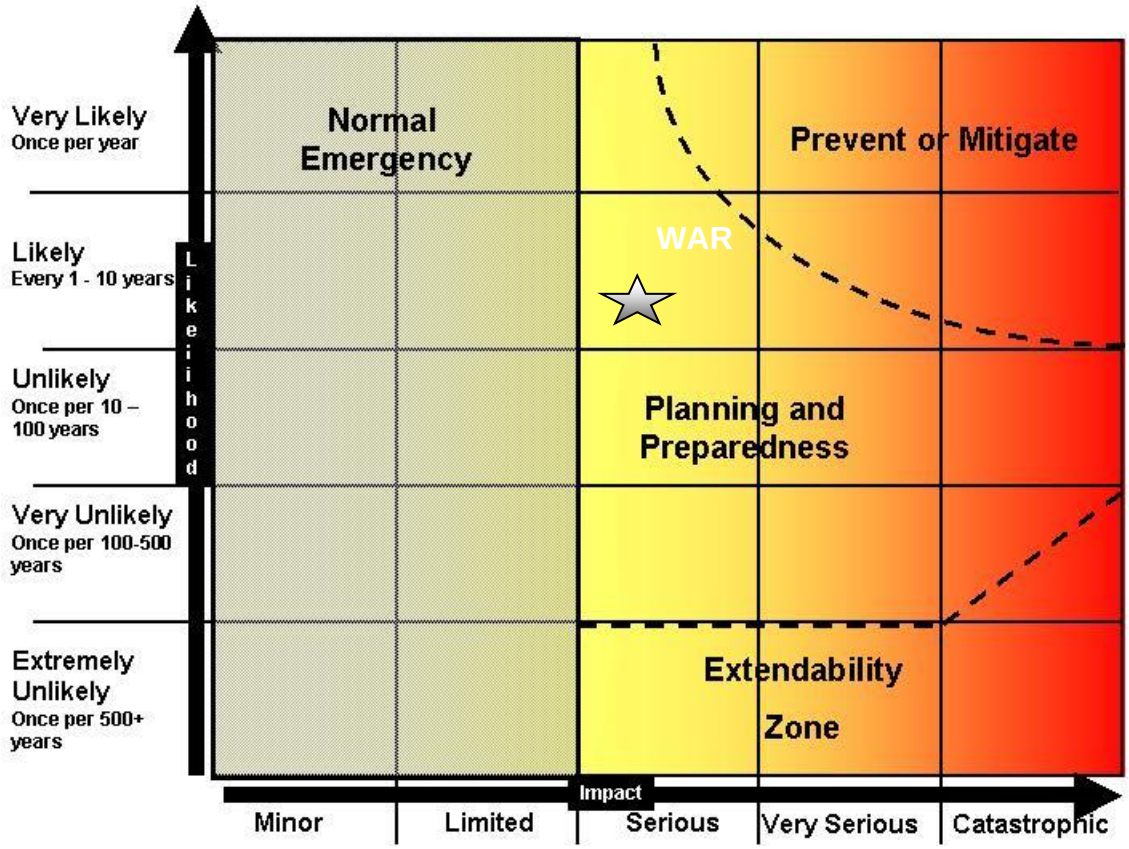
Key Historical Evidence

- 2022: Russia Invades Ukraine
- 2018: United Arab Emirates Invades Yemen
- 2017: Nigeria, Senegal & Ghana Invades Gambia
- 2016: Turkey Invades Syria
- 2014: Israel Invades Gaza
- 2014: Russia Invades Ukraine

Assessment of Impact and Likelihood						
Hazard	Impact					Likelihood
	Human welfare	Environment	Physical Infrastructure	Social	Escalation	
Displaced people	Serious	Minor	Very Serious	Serious	Rapid	Likely
Classification of Impact & Likelihood in Section 2						

*NB: Will be noted on risk matrix as WAR will be placed in the planning and preparedness zone, as the worst-case impact is classified serious.

Position on risk matrix



Prevention / Control / Mitigation measures in Place

- Provide Rest Centres for emergency accommodation
- Community section liaise with social welfare & source translators, if required
- Housing source short term accommodation to house dispersed people if possible
- Civil Defence manage rest centre operations & transport provisions
- Major Emergency Plan in place for guidance on roles & responsibilities

Risk management approach: Prevention / Control / Mitigation measures Required

- Desktop exercise for staff to familiarise themselves with the setting up of rest centres
- Future provisions for additional sources of housing by government