



A FRAMEWORK FOR MAJOR EMERGENCY MANAGEMENT

Guidance Document 14

A Guide to Severe Weather
Emergencies

February 2020



Introduction to a Guide to Severe Weather Emergencies

The Framework for Major Emergency Management (2006) sets out the arrangements by which the principal response agencies will work together in the management of large-scale incidents.

This *Guide to Severe Weather Emergencies* is intended to support the Framework text and to provide additional guidance on the response of Principal Response Agencies to Severe Weather Events.

This document is intended as a guide for the PRAs in the preparation for, response and recovery from severe weather events. It is not prescriptive allowing for flexibility in decision making, as all the consequences of severe weather cannot be anticipated. The document reflects the roles and responsibilities of the PRAs in severe weather events, with the emphasis on the Local Authority as the designated 'Lead Agency' as detailed in the Framework (2006). This Guide and associated Major Emergency documentation is available on; <http://mem.ie>.

This document, like others in the guidance series, is subject to regular review and, for that reason, it is requested that any comments and/or insights that arise during its implementation are fed back to the national level. Comments should be addressed to:

MEM Project Team,
National Directorate for Fire & Emergency Management
Department of Housing, Planning & Local Government,
Custom House,
Dublin 1.

Or

emergencymanagement@housing.gov.ie

1 Acronyms

Principal Response Agencies.....	PRA
Crisis Management Team.....	CMT
Severe Weather Assessment Team.....	SWAT
Local Coordination Centre.....	LCC
National Directorate for Fire & Emergency Management.....	NDFEM
Local Authority.....	LA
Health Services Executive.....	HSE
An Garda Síochána.....	AGS
Major Emergency Management.....	MEM
Lead Government Department.....	LGD
Framework for Major Emergency Management.....	FRAMEWORK
Strategic Emergency Management Guide.....	SEM
National Emergency Coordination Group.....	NECG

Table of Contents

1	Acronyms	iii
1.	Introduction	1
1.1	Purpose.....	2
1.2	Consequences of Severe Weather	2
2	What is a Severe Weather Plan	2
3	Background	3
3.1	Met Éireann's Weather Forecasting Service	3
3.2	Met Éireann Public Service and Severe Weather Forecasting System	4
3.3	The Met Éireann Weather Warning System	5
3.4	Public Safety Advice	7
3.5	Community Resilience	8
4	Planning & Preparedness.....	8
4.1	Warnings.....	9
4.2	Warnings and Advisories to Local Authorities	9
4.3	Warning Issued to the Public.....	10
5	Issues for the Principal Response Agencies	10
5.1	Business Continuity.....	10
5.2	Prioritise and Organise Response.....	11
5.3	Co-ordination.....	11
5.4	Communication and Public Information.....	12
6	Response	13
6.1	National Directorate Fire & Emergency Management Crisis Management Team (NDFEM CMT).....	13
6.2	Local Authority Severe Weather Assessment Team (SWAT)	15
6.3	Local Coordination	18
6.4	Regional Level Co-ordination.....	18
6.5	National Emergency Coordination Group.....	22
6.6	Other Agencies	22
7	Recovery	23
8	Appendix A Local Authority Response Levels	24
9	Appendix B Met Éireann Warnings.....	27
	Appendix C Relevant Documents	29
	Appendix D - Heatwaves.....	30
	Appendix E Local Authority Procedure for Mobilising Air Corps/ Requesting Troops for Wild land Fire-fighting Support.....	33
	NI/ UK Requests for Air Corps.....	33
	Appendix F - Flood Forecast and Warning.....	34
	Appendix G – Checklist	35

Appendix H Severe Weather Plan Template for the Local Authority's as the Lead

Agency	36
Local Authority Severe Weather Plan Template	36
Suggested Plan Distribution List	36
Introduction	36
AIM	36
OBJECTIVES	37
PRIORITIES	37
SEVERE WEATHER PREPAREDNESS	38
Plan Overview	38
GEOGRAPHICAL CONTEXT	38
SEVERE WEATHER INCIDENTS	39
SEVERE WEATHER CONSEQUENCES	39
Responding to Severe Weather	40
THE FOUR STAGES	40
Planning & Preparedness	40
WARNING & ALERTS	41
MET ÉIREANN WEATHER WARNINGS	42
DISTRIBUTION METHODS	44
Plan Response	44
LOCAL AUTHORITY SEVERE WEATHER ASSESSMENT TEAM	45
LEVEL OF ACTION	46
Level 1 Response (Yellow Alerts from Met Éireann) Routine weather events	49
Level 2 Response (Orange warnings from Met Éireann) Severe Weather Warnings	49
Level 3 Response (Red warnings from Met Éireann) Exceptional Severe Weather Events	50
ESCALATION TO A MAJOR EMERGENCY	51
LOCAL AUTHORITY BUSINESS CONTINUITY	52
REGIONAL COORDINATION	53
NATIONAL CO-ORDINATION	58
RECOVERY	58

1. Introduction

The national arrangements for the delivery of emergency management in Ireland have developed in the decade since the publication of “A Framework for Major Emergency Management” in 2006¹. This document set out the structures and approach to enable the Principal Response Agencies (An Garda Síochána the Health Service Executive and the Local Authorities) to prepare for and make a co-ordinated response to severe weather emergencies.

Local authorities are designated Lead Agency in the preparation and the response to severe weather emergencies under the Government approved Framework (2006) and they lead and co-ordinate both the response and the recovery operation in accordance with well-established protocols and guidance, under the overall umbrella of their Major Emergency Plans. Each Local Authority as Lead Agency should have, as a specific sub plan of its Major Emergency Plan, a plan for responding to severe weather emergencies, whether a major emergency is declared or not.

The supporting PRA's (The Health Service Executive & an Garda, Síochána) are also required to have sub-plans in place that detail how their supporting functions will be carried out during the response phase². The objective of this guide is to support all PRA's in developing severe weather plans, building on the experience from severe weather events.

All the PRAs have participated fully in emergency management capability development programmes over the last decade. The Framework prescribes a requirement for the Principal Response Agencies (An Garda Síochána, the Health Service Executive and the Local Authorities – the PRA's) to prepare for episodes of severe weather.

It should be noted that flooding emergencies may occur as a consequence of severe weather, flooding emergencies are addressed in the latest version of 'A Guide to Flood Emergencies' which should be read in conjunction with this Guide.

Since the implementation of the Framework (2006), the Principal Response Agencies (PRAs) have had to deal with a series of flooding, severe ice/snow, heatwaves and severe storm emergencies, in each case requiring local Coordination of the response and in some instances supported by national co-ordination (a Whole-of-Government response) where deemed necessary. During flooding and severe weather emergencies the Principal Response Agencies have responded using the co-ordination structures and procedures set out in the Framework

¹ The Framework for Major Emergency Management (2006) will be referred to as the Framework (2006) throughout this document.

² See Appendix C

(2006). These responses were typically lengthy and challenging, requiring very significant resources during the response and recovery phases.

1.1 Purpose

The objective of this guide is to support all PRA's in developing severe weather plans, building on the experience from severe weather events, so as to minimise the impacts and damage caused by severe weather events in Ireland. It is also aimed at assisting Principal Response Agencies in meeting their responsibilities, under the Framework (2006).

1.2 Consequences of Severe Weather

There are different consequences for each type of severe weather event but among the most common are:

- Life risk;
- Public Health issues, Environmental Health, Critical Health Continuity;
- Rescue from homes, vehicles, etc;
- Roads closures;
- Isolation and other problems for the elderly and vulnerable;
- Disruption of water supplies;
- Disruption of power supplies;
- Closure of schools;
- Disruption to public transport, businesses, etc;
- Disruption of supplies of food, medicines, fuel, etc;
- Problems with feeding and shelter for animals;
- Damage to infrastructure, such as roads, railways, power lines, etc;
- Damage to the environment, including forest and wild land fires.

It is clear from recent responses to severe weather (Storm Emma, 2018) that community's rally together demonstrating resilience during such emergencies to assist vulnerable people and to take action to help protect themselves, their neighbours and their property. Harnessing this goodwill with the PRAs working with communities during severe weather crises is an essential aspect of a co-ordinated response.

2 What is a Severe Weather Plan

A severe weather plan outlines the roles and responsibilities of the PRAs in the preparation, for response to, and recovery from severe weather emergencies which includes;

- Planning & Preparedness, including the Local Authority having a Severe Weather Assessment Team (SWAT) monitoring information from Met Éireann;
- Procedures and processes in place (and individuals who have been trained) to establish and run, as required:

- PRA Crisis Management Teams;
- On-site Co-ordination Groups;
- Local Co-ordination Groups;
- Regional Co-ordination Groups;
- The National Emergency Co-ordination Group.
- Procedures for the mobilisation of resources during severe weather events;
- Public Information, monitoring social media and other sources and utilising the full resources of the PRAs to disseminate information in a timely fashion to the targeted population.

The PRAs are required to have in place a Severe Weather Plans, with the Local Authorities also required to have Flood Risk Maps and Flooding Plans, as appropriate.

3 Background

Recent experiences suggest that Ireland's climate maybe changing, these changing climatic conditions bring different types of severe weather, which may increase the impact of weather events for;

- Flooding;
- Frost/Ice;
- Heavy Snow/Blizzard;
- Severe Windstorms;
- Thunderstorms;
- Prolonged Heat wave (Drought conditions).

The National Risk Assessment (NRA) assigns a high risk to many of the severe weather events listed above. In the preparation of joint risk assessments, the PRAs acknowledged this risk and have put in place severe weather plans and associated preparedness programmes to address them.

3.1 Met Éireann's Weather Forecasting Service

Met Éireann is Ireland's national meteorological service. It is a division of the Department of Housing, Planning and Local Government, which is the Lead Government Department for co-ordinating the response to severe weather events.

Ireland's weather is part of a global system and Met Éireann therefore works with a range of international partners in its forecasting work. Met Éireann is a member of the HiRLAM consortium which develops the high resolution HARMONIE - (HiRLAM Aladin Regional Mesoscale Operational Numerical Weather Prediction in Europe) model which is used for short range weather forecasting. Met Éireann runs the HARMONIE model four times a day

and uses the model as guidance for forecasts, advisories, alerts and warnings out to 54 hours ahead.

Met Éireann is also a member of ECMWF, deterministic and probabilistic weather models for medium range forecasting. The ECMWF is an independent inter-governmental organisation supported by 34 states in or near Europe. It is both a research institute and a 24/7 operational service, producing and disseminating numerical weather predictions to its Member States. The ECMWF global 10-day weather model forecasts are used throughout the world, including the tropics, and it is considered the best medium range model worldwide.

Both HARMONIE and ECMWF meteorological modelling systems require the input of real-time meteorological observations. Met Éireann operates a countrywide network of meteorological ground observation stations and a meteorological RADAR network. Additionally, through Met Éireann, Ireland is a member of EUMETSAT, an inter-governmental organisation which supplies meteorological satellite data for ingestion into meteorological model systems. This satellite information is especially vital for ensuring accurate prediction of weather over otherwise data sparse ocean regions. The input of meteorological satellite data was essential in the prediction of the evolution of Hurricane Ophelia over the eastern Atlantic Ocean

3.2 Met Éireann Public Service and Severe Weather Forecasting System

Met Éireann's Forecast Division provides weather forecasting for Ireland. The forecasting team work with a range of advanced computer weather modelling systems³, assessing how weather systems will develop and affect Ireland – usually concentrating on a rolling five day look ahead with emphasis on the 48 hour outlook. Met Éireann staff compiles complex scientific information into regular weather bulletins, keeping the public and public sector decision makers informed on how the weather will change, and providing multiple forecasts each day.

Met Éireann provide:

- Detailed forecasts based on best available high resolution weather models;
- Communication of public service forecasts and warnings;
- Availability of expert Forecaster advice and consultation 24/7/365 to provide detailed tailored weather information support to key agencies in severe weather situations;
- Information, forecasts, advisories, alerts and warnings to the public continually provided via television and radio broadcasts, digital platforms including the Met Éireann website (www.met.ie), smartphone apps and social media;

³ See Section 3.1, pp.3 - 4 for further details of the models used by Met Éireann

- On-going engagement with the National Directorate for Fire and Emergency Management which exercises the Department of Housing, Planning and Local Government's Lead Government Department role in relation to weather alerts;
- Support to the National Emergency Co-ordination Group, when convened.

3.3 The Met Éireann Weather Warning System

The production and communication of Weather Warnings is a key function of Met Éireann as the National Meteorological Service. The core rationale for issuing Weather Warnings is to protect the lives and livelihoods of all of the nation's citizens, and to mitigate damage to property and disturbance to economic and societal activity in times of severe weather.

A Weather Warning system⁴ was introduced by Met Éireann in 2013. This aligns fully with the European MeteoAlarm⁵ system. Weather Hazards covered by Met Éireann's weather warnings system are:

1. Wind
2. Rain
3. Snow
4. Low Temperatures
5. Fog
6. High Temperatures
7. Thunderstorms
8. Coastal Wind Warnings

In general Weather Warnings will be issued whenever weather conditions meeting the detailed thresholds defined in table 1, pp.27-28 are anticipated within a 48-hr period. There will be judgement required on the part of the forecaster who must weigh up the possible severity of the weather conditions and the likelihood of their occurrence

Met Éireann's main suite of warnings are issued by the duty forecaster between 10am and midday and are updated as necessary as new information becomes available. In general, warnings will not be issued more than 48-hours ahead of the expected adverse weather but advisories on potential hazards are issued up to a week in advance.

⁴ See Table 1, pp.27-28 for full weather warning description.

⁵ <https://www.meteoalarm.eu/>

Weather Warnings are presented in three categories:



Status Yellow

Weather that does **NOT** pose a threat to the general population but is potentially dangerous on a localised scale.

Be Aware about meteorological conditions and check if you are exposed to danger by the nature of your activity or your specific location. Do not take any avoidable risks.



Status Orange

Infrequent and potentially dangerous weather conditions which may pose a threat to life and property depending on location and activity.

Prepare yourself in an appropriate way depending on location and activity. All people and property in the affected areas may be significantly impacted.

Check your activity/event and delay or cancel as appropriate



Status Red

Rare and extremely dangerous/ destructive weather conditions from intense meteorological phenomena.

Take action to protect yourself and your property. Follow the instructions and advice given by the authorities under **ALL** circumstances and be prepared for exceptional measures.

One of the limitations of the colour coded system is that the existence of boundary conditions between the different colour bands may not always be adequately understood. Threshold figures which trigger changes in colour bands are part of a continuum, not discrete points on a scale. So a wind storm at the higher end of the ORANGE band may bring conditions very similar to a storm forecasted to be in the lower end of the RED band. The PRAs should always consider the possible impacts on adjoining counties with all-weather warnings issued by Met Éireann, and consider where necessary regional coordination, where required.

The experience with the weather warning systems which have developed over recent years supports the overall trend which is moving towards weather forecasts which support “impact based” decision-making. This will involve, for example, moving to look at the likely damage that certain wind speeds will cause for a specific geographical location, rather than predicting wind speeds themselves, taking population, time of year, time of day, of week, hour of day into consideration. A key aspect of this impact-based approach is providing information to key decision makers to allow them to best prepare to mitigate weather risks and hazards with the potential to threaten life and property. The public are obviously the ultimate key decision makers who receive Met Éireann’s information and have to decide how to react to the information received.

Modelling systems of natural phenomenon like weather involve a degree of uncertainty. This uncertainty is a particular feature of some high intensity storms. The degree of uncertainty contributes to the overall risk posed by such systems. A sudden change in the track of a storm from that forecasted which can and has occurred, changes the risk profile and population affected. Understanding the type and levels of uncertainty within which weather forecasters are operating is an important parameter in making decisions, based on their forecasts and advice. This uncertainty factor also reinforces the need to take a precautionary approach when considering issuing public safety advice, taking account of the possible evolution of weather systems. This is perhaps best achieved by co-ordinating the advice of expert forecasters with experienced public safety staff through national (and local) co-ordination groups, where the uncertainties and limitations of weather forecasts are well understood.

3.4 Public Safety Advice

RED level weather warnings are forecasts based on Met Éireann forecast models put into the public domain for the purposes set out in Section 3.1, pp.3 - 4. They are not mandatory edicts requiring or forbidding specific actions, and should not be regarded as such. The limitations and uncertainties of weather forecasting outlined above need to be borne in mind at all times.

However Met Éireann warnings are one very important factor which should be considered by the PRAs in deciding if specific additional public safety advice should be issued in any situation. Such advice, for example, in the form of “Get indoors and Stay Indoors” was issued by the National Emergency Coordination Group in relation to both Storm Ophelia and the blizzard conditions associated with storm Emma.

3.5 Community Resilience

Community resilience initiatives vary across communities and continually change and evolve and form part of the emergent response when crises occur graphically demonstrated in the recent severe weather events. While the goodwill and initiative that people demonstrate during an emergency is vital, people are now taking steps individually and collectively to prepare themselves locally in advance of an emergency actually happening, as demonstrated in 2017 and 2018 with Storm Ophelia and Storm Emma respectively. This preparedness enables the community to come together, utilising the locally identified resources, both personnel and equipment during the response to an emergency affecting their community. This response will complement the various emergency response agencies efforts in responding to the emergency. Previous experience has demonstrated that communities who have spent time planning and preparing for an emergency are better able to cope and recover more quickly.

Finding an effective way to engage with communities is a continuing challenge for the Principal Response Agencies and the wider group of supporting public sector organisations. The starting point for such engagement should be to use existing structures within the PRAs in a co-ordinated way which should include the Public Participating Networks.

Strengthening the link to communities helps to improve preparedness for emergencies. Experience has shown that engagement at preparedness stage leads to a better response, avoids duplication and leads to a more rapid recovery. Good community resilience should help to protect the most vulnerable during emergencies

4 Planning & Preparedness

The following recommendations are generic and general in character and are designed to assist the PRA's in preparing for and responding to Severe Weather Events. The recommendations are divided into those which are relevant to the Planning & Preparedness, Warning, Response and Recovery stages.

The Principal Response Agencies should individually and/or jointly:

- Examine the relevant sections of their existing MEM Risk Assessments, with particular attention to:
 - Individuals and/or communities who are particularly vulnerable to Severe Weather effects, such as flooding, impassable roads, etc. (People can become vulnerable for lots of reasons);
 - Key elements of Community and PRA infrastructure which are particularly vulnerable (e.g., buildings subject to flooding, I.T equipment and/or emergency generators located in basements threatened by flooding, etc.);

- Establish Local Authority Severe Weather Assessment Teams (SWAT), comprising of individuals at an appropriate level;
- Put in place any mitigatory elements and/or strategies which will help to protect vulnerable individuals, critical services, communities and critical infrastructure;
- Ensure that all necessary plans, as per the Framework (such as Severe Weather Plans, Flood Plans, etc.), are in place and have been exercised and tested;
- Ensure that all staff members who are likely to play a key role in the response are aware of the appropriate plans, procedures and systems and the role which they will be expected to play in response;
- Engage with the local communities, promoting household and community resilience⁶.
- Engage locally with key agencies that are likely to be involved with the PRA's in the response including the OPW and the ESB, with a view to establishing a better understanding on each side of the requirements, capabilities and limitations of the others and forging links which will facilitate a speedy activation during Severe Weather Events.

4.1 Warnings

Severe weather warnings can be divided into two separate types as follows:

- Warnings and Advisories which are issued by different organisations such as Met Éireann, the OPW and the ESB and used by Local Authorities to decide on the appropriate level of response required, a diagram demonstrating the warning notification systems is detailed in Appendix B p.27⁷, and;
- Warnings which are issued to the public.

4.2 Warnings and Advisories to Local Authorities

The Framework sets out the arrangements put in place by Met Éireann to issue Public Service Severe Weather Warnings to the Local Authorities⁸. Weather related warnings and advisories can also be received from other sources, such as the ESB⁹ and both IceCast road weather information system and tidal surge warnings (e.g., Dublin TRITON system). OPW High Tide Advisories and Tide Storm Surge Forecasting System. The Local Authorities should share all information regarding the potential of severe weather with the other PRAs.

⁶ The Be winter Ready Campaign; <https://www.winterready.ie/en>

⁷ Weather warnings can also be relayed to the projected affected Local Authorities through a representative from the National Directorate for Fire & Emergency Management (NDFEM) CMT.

⁸ Local Authorities receive email notifications from Met Éireann for all warning levels which impact their county.

⁹ These warning are in relation to water levels on river catchments managed by the ESB, i.e. the Liffey and the Shannon, where the ESB have hydrogenation stations.

4.3 Warning Issued to the Public

Met Éireann has a well-established television, radio, smartphone app and now a social media presence. Information regarding the weather and any possible alerts or warnings issued are relayed through these various platforms in order to reach the different demographics who depend on this information from the National Weather Forecasting Service.

5 Issues for the Principal Response Agencies

Severe Weather Events raise many issues for the Principal Response Agencies (PRA's) including in the areas of:

5.1 Business Continuity

Good practice in all business organisations requires continuous work in the area of business continuity to ensure that mission critical functions can be maintained by the PRAs regardless of emergencies and crises. This requires detailed analysis of impact of the potential disruptive events that may affect technical systems, facilities or staff availability. Ideally, single points of failure should be eliminated across all mission critical systems and staff planning should take account of potential disruptive events.

Depending on the nature and severity of the event:

- Facilities can be compromised (e.g., buildings flooded or without electricity);
- Special health and safety issues can arise for staff (e.g., hypothermia, slips and falls on ice, vehicle accidents, deep and/or swift flowing water, flying debris during severe winds);
- Emergency and other vehicles may be unable to travel;
- Staff may be unable to get to work;
- There can be shortages of key supplies (e.g., salt for roads, chlorine for water treatment, medicines, fuel, etc.);
- Staff fatigue can arise as the response goes on for an extended period.

The PRAs need to consider the vulnerability of their own critical services. Appropriate business continuity planning is needed to assess the likely risks to the principal response agency's key services, and to identify the actions, which promote resilience.

5.2 Prioritise and Organise Response

Under the Safety, Health & Welfare at Work Act 2005 and the Safety, Health & Welfare at Work Regulations (General Applications) 2007 the PRAs have a duty of care for their employees. The agency should evaluate the weather conditions, and the nature and urgency of the task that is required to be carried out and plan accordingly. This decision is based on a dynamic risk assessments carried out by the agencies taking account of all the hazards, and balancing the evolving situation against available control measures. It is important that all organisations are aware that partner responding agencies may withdraw from operations when conditions become too severe.

In many protracted Severe Weather Events which continue for an extended period and/or cover a wide area it is not possible for the PRA's to respond to every request/need for assistance immediately.

In this situation the PRA's must attempt to:

- Establish the real and most urgent needs of the community;
- Set priorities for the response and be prepared to defend these to the public and the media;
- Organise and maintain a protracted 24/7 response;
- Encourage community resilience in assisting individuals and communities to respond themselves ("Help Yourself and Your Family", "Help your Neighbour").

5.3 Co-ordination

During a severe weather emergency the Local Coordination Group will have senior management from the Health Service Executive (HSE), An Garda Síochana (AGS) and the Local Authority (LA) with the necessary support staff for the duration of the weather emergency. The Local Coordination Group may also invite, if deemed necessary representatives from other agencies to attend Local Coordination Group meeting.

Extended, wide-area Severe Weather Events require co-ordination:

- Within each PRA, where some individuals who are not normally involved with emergency response, but may be called upon to play key roles;
- With other PRA's, within the MEM region (Regional Coordination);
- With neighbouring PRA's, from outside the local MEM region;
- With national agencies, including PRA headquarters and/or parent Departments, other Government Departments, the National Emergency Co-ordination Group, etc.
- With agencies which they may not normally work closely with, such as the ESB, the OPW, the Defence Forces, the Coast Guard and the Voluntary Emergency Services;
- With existing and/or emerging local community groups and organisations.

5.4 Communication and Public Information

In severe weather events warnings may be required for the whole country, or a region of it, as, for example, in the case of an approaching storm or blizzard; other warnings may be required for a smaller area, such as a river catchment, in the case of very heavy rainfall. Alternatively, a warning may be required for a specific local area, such as a town threatened by rising flood waters. This type of local warning will normally be provided by the Local Authority.

It is important that the content of any public warnings issued by the PRAs are carefully considered, with a view to optimising the response of the public, and the most appropriate means of disseminating those warnings identified range from;

- Agency Website Information
- Social Media (Twitter, Facebook, MapAlerter etc.)
- Television
- National Radio
- Local Radio

In the case of specific local areas identified as being at risk, emergency vehicles and personnel can be utilised to deliver the warnings.

During protracted Severe Weather Events there is a demand from the public for timely and accurate information (e.g., What roads are closed? Are schools to be closed? Have hospital outpatient clinics been deferred?). There can be significant media and political interest in the event.

In this situation the PRA's need to:

- Continually collect and verify relevant and timely information, including utilising the fire service three '999' Regional Communications Centres to provide situation reports;
- Disseminate this information to the public on a regular basis via all practical means including Social Media. (During recent Severe Weather Events, information bulletins on local radio at the same time each day proved very effective and these can be supplemented with advice and up to date information on PRA websites), MapAlerter is also another tool which some Local Authorities utilise to good effect;
- Establish Information Lines which can take large numbers of calls from the public and return as quickly as possible to callers with relevant information;
- Provide regular, accurate information to:
 - local and national media;
 - local and national political representatives;
 - national headquarters and/or relevant Government Departments.

6 Response

6.1 National Directorate Fire & Emergency Management Crisis Management Team (NDFEM CMT)

The National Directorate for Fire & Emergency Management Crisis Management Team continually (CMT) monitors and reviews information received from Met Éireann and from other sources such as the OPW and the ESB. When the NDFEM CMT receives information regarding the weather, it meets and makes key decisions based on this information and decides on any requirement to contact projected affected Local Authorities directly or convene a National Emergency Coordination Group meeting.

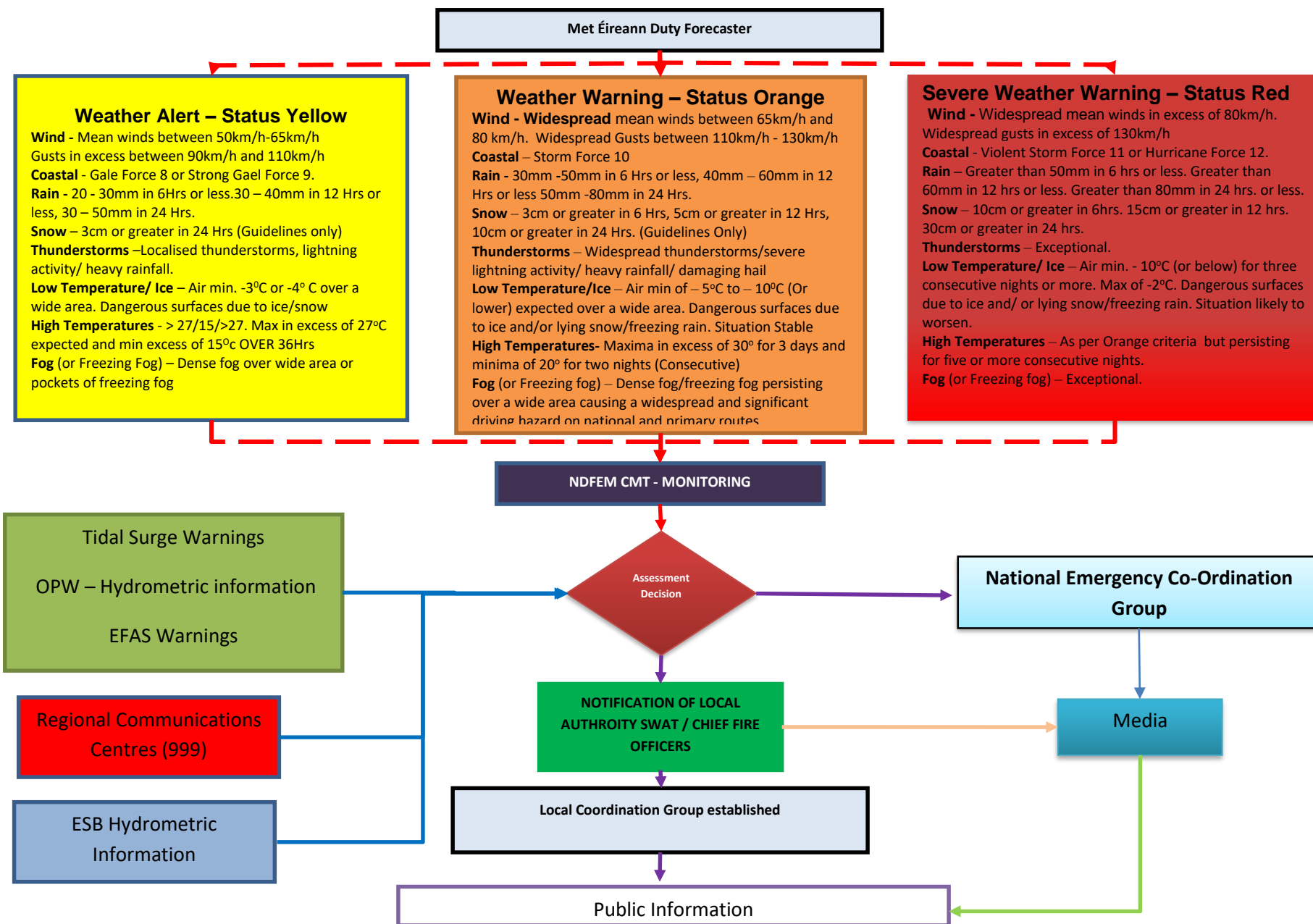


Figure 1 NDFEM Crisis Management Team Activation Sequence

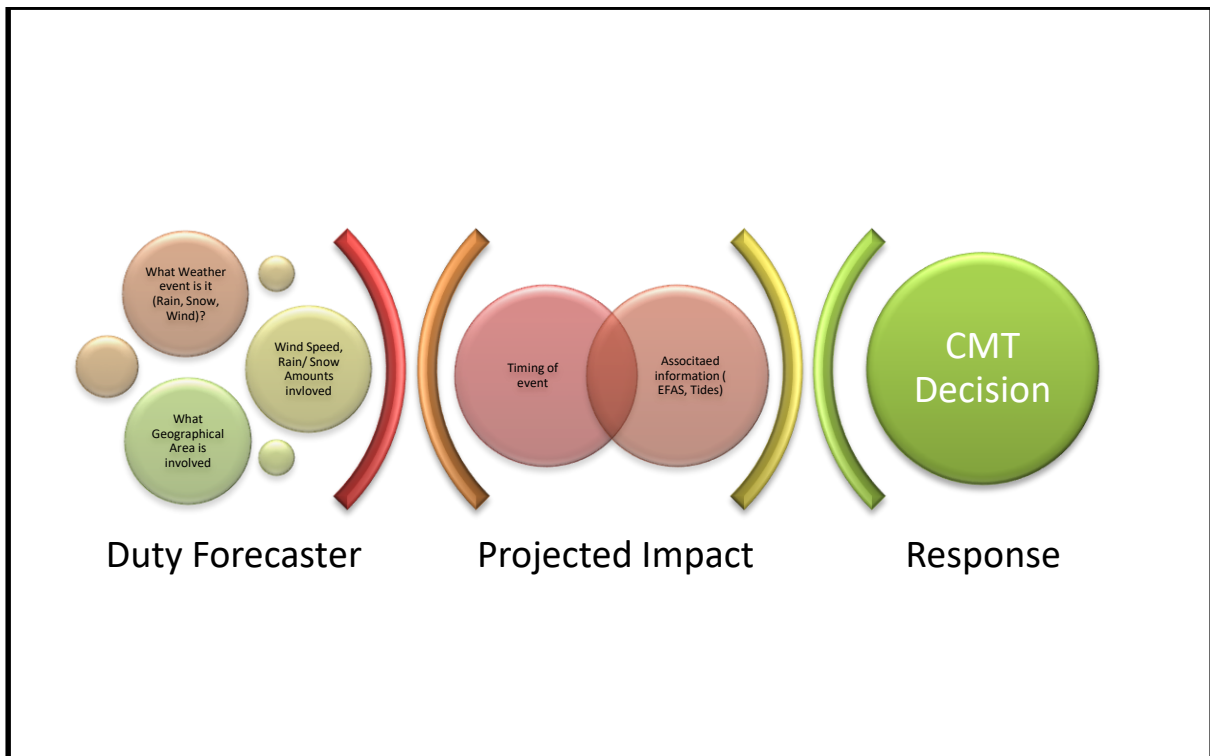


Figure 2 National Directorate for Fire & Emergency Management Crisis Management Team Assessment Decision Making Process

6.2 Local Authority Severe Weather Assessment Team (SWAT)

Each Local Authority should ensure that it has a Severe Weather Assessment Team (SWAT) in place which can be activated if and when required, comprising of relevant technical individuals and senior management from within the LA system. The composition of the team may change by providing the technical knowledge required to understand the event and its possible implications, in order to make key decisions. The Local Authority Severe Weather Assessment Team (SWAT) and Crisis Management Team (CMT) will often have members which are common and interchangeable or two distinct separate teams, depending on the severity of the weather event.

Effective arrangements need to be in place and formalised to receive and respond promptly to such weather warnings. Key to this is updating personal contact information of the SWAT¹⁰ and relaying this to the NDFEM/ Met Éireann and also the organisations detailed above.

The LA SWAT should appraise the information it receives and depending on the nature of the weather impact assessment, a warning, pre-alert as seen for Storm Ophelia and/or activation

¹⁰ Generic email addresses have been developed by all Local Authorities for their SWAT Team, all notifications regarding weather advisories or warnings will be issued to this email address.

instruction should be issued to all appropriate sections of the Local Authority, as well as to the other PRA's. A Major Emergency should be considered and declared where appropriate.

Every warning or alert received should be considered by a Local Authority in the context of other relevant information available to it (such as, hydrological information from the OPW and local knowledge of river systems, roads, infrastructure, vulnerable communities, etc.). Based on this information, a 'Best Guess' weather impact assessment should be prepared in each case. The Local Authority should consider all this information using the generic crisis management system, and consider activating Local Coordination arrangements at an early stage in anticipation of the unfolding severe weather emergency. It should always share their assessment of the predicted severe weather episode with the other PRAs.

Table 1, pp.27-28 sets out the different types of advisories and warnings received by a Local Authority from Met Éireann. The Local Authority divides the possible weather impact assessment into three levels; and for each level it gives an overview of the likely Local Authority Actions and Inter-Agency Activity. Further information regarding the three levels of response are available in Appendix A, pp.24 - 26.

In the event of a major emergency being declared for a severe weather event, The Local Authority will operate to procedures contained within the Major Emergency Plan (see Major Emergency Plan for further details).

Whenever a Severe Weather Event occurs, or is threatened, the PRA's should respond in a manner, which is appropriate to the severity of the event (or threatened event). For the purpose of this guidance document, these events are divided into three classes as follows: Exceptional Severe Weather Events, Severe Weather Alerts and Routine Weather Events¹¹.

Note: During the pre-warning, warning and response phases to a Severe Weather Event, the PRA's should use all appropriate coordination structures of the Framework (2006), Local Co-ordination Groups, Regional Co-ordination Groups and the Information Management System, **whether or not a Major Emergency has been declared.**

¹¹ Normal winter weather events.

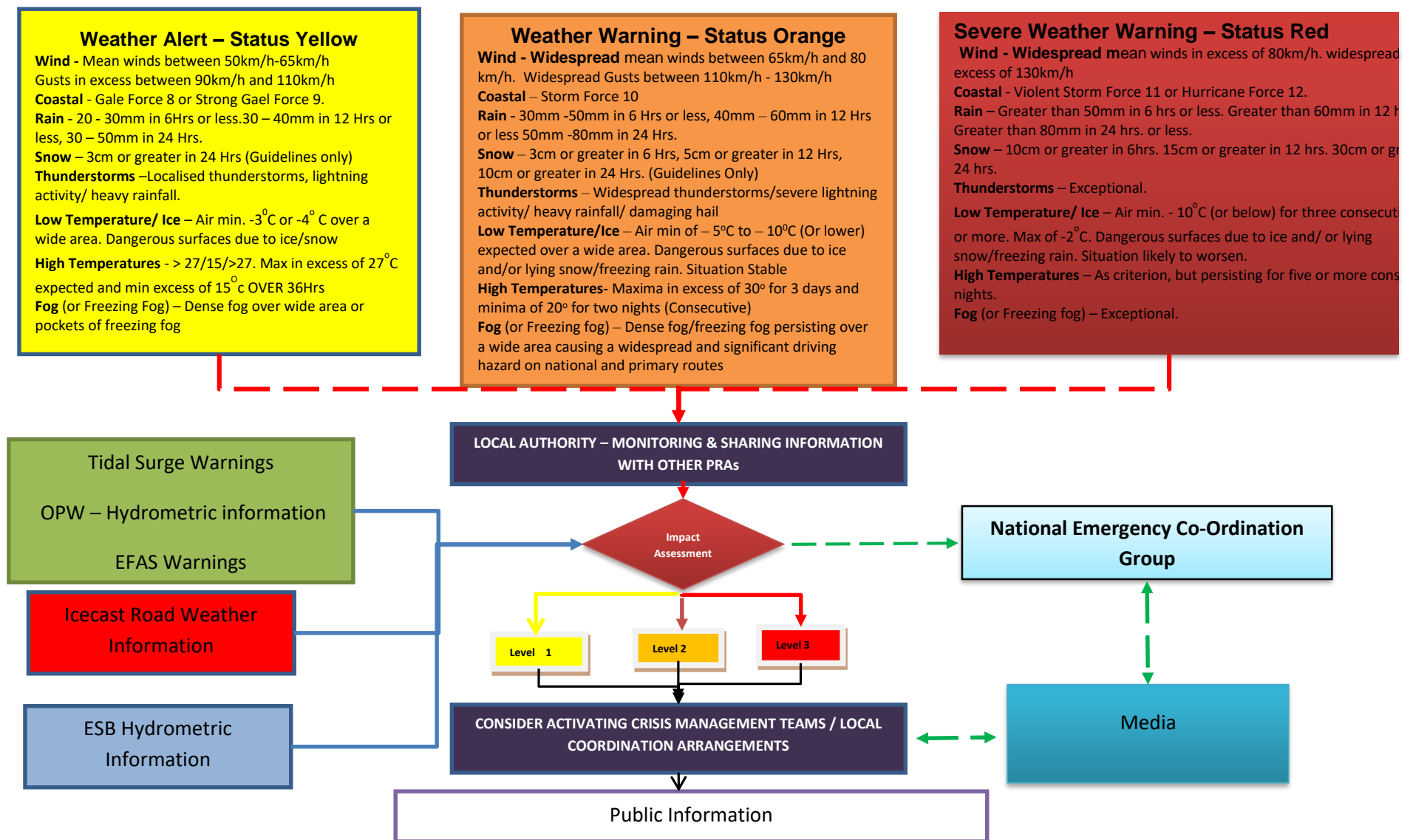


Figure 3 Local Authority Severe Weather Assessment Team

6.3 Local Coordination

The Local Authority acting as the Lead Agency should consider convening Local Coordination at the earliest time possible prior to (On information received as a precautionary measure) or during a severe weather event. There may be situations where the Local Coordination group are notified of an impending severe weather event possibly impacting their functional area and in this situation it may be imperative for the group to convene in pre-crisis mode, with the Local Coordination Group monitoring the situation as it develops enabling a prompt response to a very dynamic situation.

The Local Coordination Group will communicate public safety messaging through the various channels described earlier and also with the NECG if convened. Recent events have demonstrated the difficulty that arises during severe snow/ blizzard conditions where key members of the LA and other agencies may not be physically able to attend the Local Coordination setting. This problem has been overcome in various ways from teleconferencing, delegating to another staff member up to the other two PRAs sitting in a crisis management setting within the Local Authority. No one way is advisable, decisions need to be made locally to best suit the conditions that they face. This practice is encouraged.

6.4 Regional Level Co-ordination

Where a Severe weather event impacts over a wide area, where a number of Local Authorities, Garda Divisions or HSE Regions are involved, consideration should be given to establishing a Regional Co-ordination Group and structuring the inter-service response on a regional basis¹². The initial step in deciding on Regional Coordination is through tele/ or videoconferencing between the PRAs, identifying the need and requirements for Regional coordination to be activated.

The configuration and operations of the regional coordination will be agreed among the chairs of the lead agencies involved.

A Regional Co-ordination Group can be established in a number of different ways as the following examples illustrate:

- Firstly, where a Local Co-ordination Group has been activated by the City/County Council at the centre of the impact zone, contact should be made by the chair with the senior management of neighbouring PRA's whose areas of operation are affected, with a view to inviting these PRA's to send representatives to participate in the group, which will then become, de facto, a Regional Co-ordination Group.

¹² See decision making tree in figure 4 & 5 pp. 20 & 21.

- Secondly, where the impact of the Severe Weather Event occurs over all or most of an MEM Planning Region, the chairs of the affected region's Local Coordination Group's may teleconference and decide to activate a Regional Co-ordination Group in one of the designated Local Co-ordination Centres in the region.
- Thirdly, where a number of Local Co-ordination Groups have been activated, each group will be in communication with the National Emergency Co-ordination Centre, where national level co-ordination may be the most appropriate form of overarching co-ordination across the local groups.

Note: The Framework recognises that the designated MEM Planning regions may not always be the most appropriate ones for response. For example, in the case of flooding, the region for response could be based on a river basin or part of a river basin.

Finally, where a number of Local Co-ordination Groups have been activated, the chairs may take the view that a Regional Co-ordination Group should be established. Such a group will normally be located at the Local Co-ordination Centre as a single hub of activity which configuration, which in the view of the chairs, is best positioned (in terms of resources, communications and geography), to co-ordinate the activity of the different Local Co-ordination Groups that are active. The Regional Coordination Group should be clear what functions are being taken on by it, and what functions will remain within the various local coordination groups.

Note: During a Severe Weather Event, each Local Co-ordination Group will communicate with the National Emergency Co-ordination Centre, or the Regional Co-ordination Group, as appropriate, through their chairs.

Note: During a Severe Weather Event it may not be practical for all PRA's to send representatives to Regional Co-ordination Group meetings and, in such situations, consideration should be given to the use of teleconferences and/or other technology which can facilitate virtual meetings.

The major advantages of Regional Level Co-ordination are that it facilitates:

- Effective co-ordination across a wide area;
- Better co-ordination with national/regional groups, such as the ESB, the OPW and the Defence Forces if requested as an aid to the civil authority;
- Co-ordination with the National Emergency Co-ordination Group.

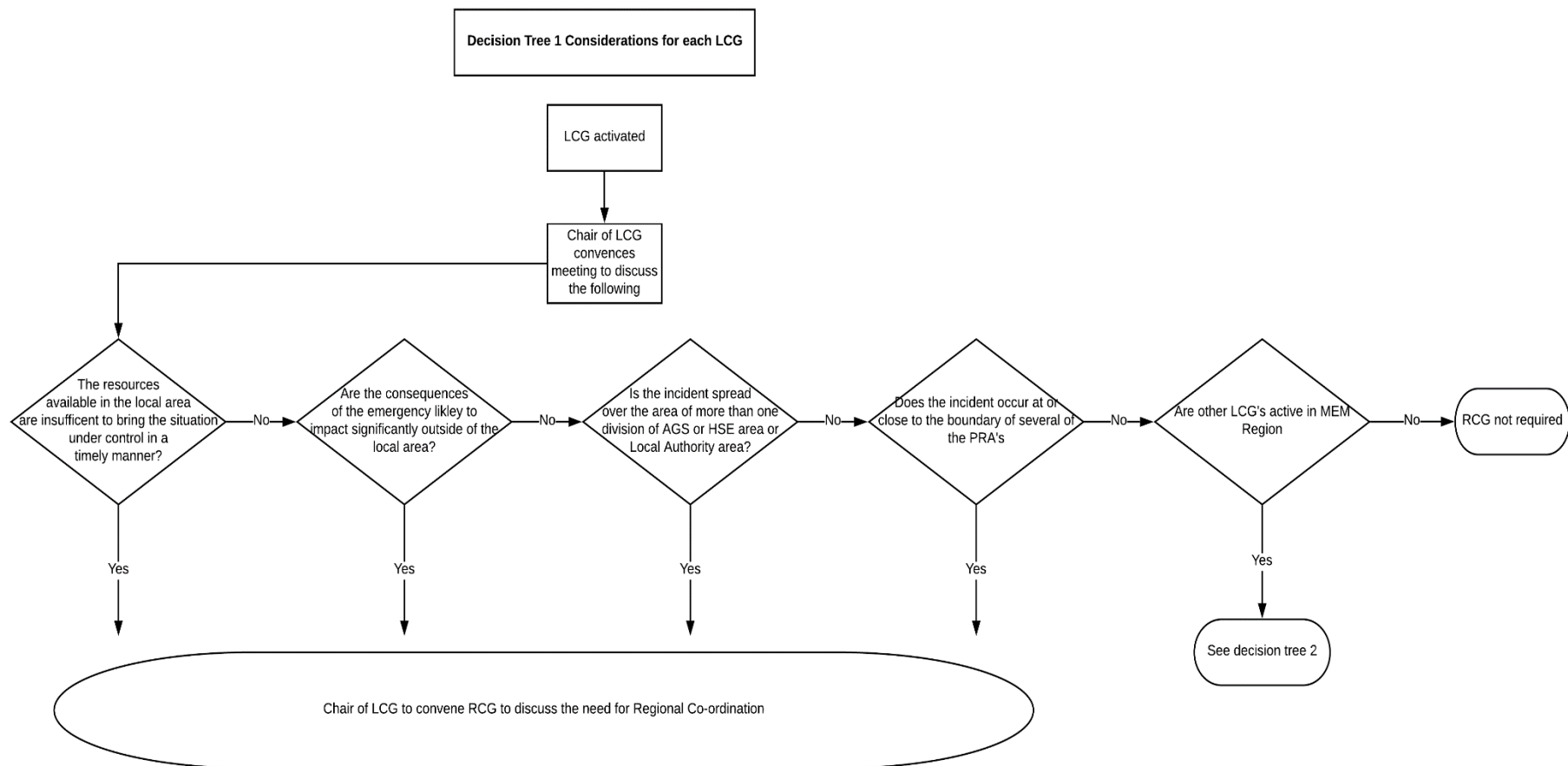


Figure 3 Regional Coordination decision tree 1

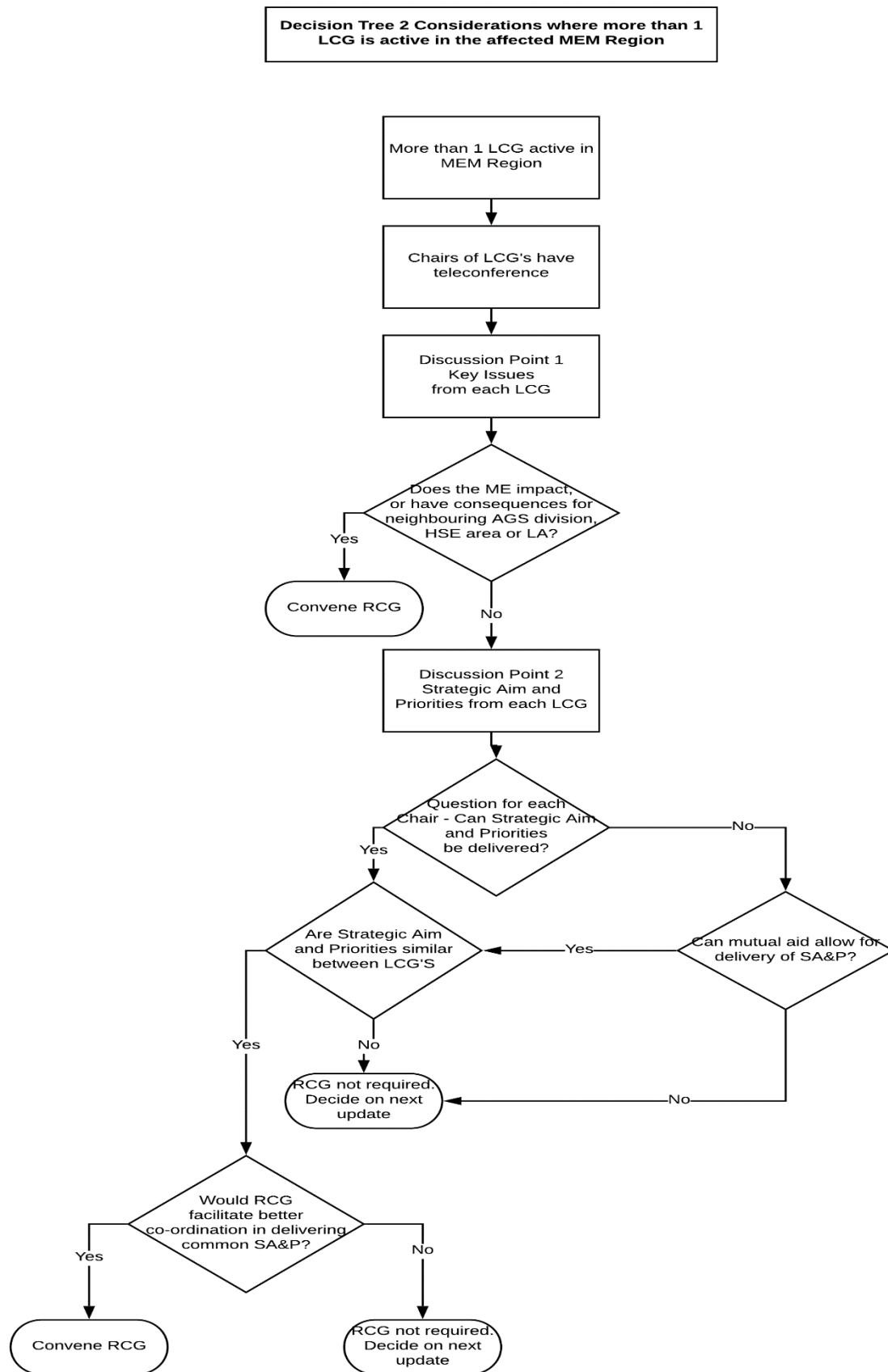


Figure 4 Regional Coordination decision tree 2

6.5 National Emergency Coordination Group

During a Severe Weather Event, where it is considered appropriate, the National Co-ordination Group may be convened at the National Emergency Co-ordination Centre, Kildare Street, Dublin¹³. This Group may be activated whether a Major Emergency has been declared or not. The sequence of the National Co-ordinations group's activation is detailed in Figure 1, p.14. Once the National Co-ordination Group has been convened, it is important that each Local and Regional Co-ordination Centre, which has been activated establish communications with the NECC via the relevant Lead Agency (i.e., the Local Authority).

Once communication has been established, the format and frequency of reports between the local/regional and the national levels, which will vary depending on the nature, severity and extent of the Severe Weather Event, can be established. The D/HPLG will chair the group as lead Government Department, and all other Government Departments will be represented as detailed in the Strategic Emergency Management Guide (2017). The group will conduct a National overview of the situation liaising with Local Authorities and the other PRA's within the affected Regions. A media briefing may be called to disseminate information to the public. The group can be convened in anticipation of a severe weather event as demonstrated in storm Ophelia and Storm Emma.

6.6 Other Agencies

During a Severe Weather Event, the PRA's will have to deal extensively with other organisations who may have important information or who may be in a position to assist in the response. This was evident during Storm Emma in 2018 when organisations such as Transport Infrastructure Ireland (TII), Irish Water (IW), the Civil Defence (CD), ESB, Voluntary Emergency Services (VES) and the Defence Forces assisted in the response. It is important to note that Irish Water convene their crisis management teams for all severe weather events, especially during long durations of hot and dry weather as seen in the Summer of 2018. At the first meeting of the Local Co-ordination Group, a list of such organisations should be prepared and all relevant organisations should be invited to send liaison persons to meetings of the Site and/or Local Co-ordination Groups, where appropriate.

¹³ Strategic Emergency Management Guide (2017),
<https://www.emergencyplanning.ie/en/news/strategic-emergency-management>

7 Recovery

During the Recovery stage of any Severe Weather Event the relevant PRA's should be in a position to address the recovery issues set out in Section 6 of the Framework (2006), including:

- Assisting the physical and emotional recovery of victims;
- Providing support and services to persons affected by the emergency;
- Clean-up of damaged areas;
- Restoration of infrastructure and public services;
- Investigations/enquires into the events and/or the response; and;
- Restoring normal functioning to the Principal Response Agencies;
- Updating severe weather plans.

8 Appendix A Local Authority Response Levels

Level 1 Response (Yellow Alerts from Met Éireann) Routine weather events¹⁴

All Local Authorities receive email notification from Met Éireann, utilising the generic email addresses and push notifications and/or texts as per prescribed subscriptions regarding weather alerts /warnings for their county.

Local Authorities SWAT continually monitor and assess the weather situation utilising information received from Met Éireann, the OPW, ESB and other sources. Local Authorities have well practiced procedures in place to deal with such events including gritting roads, pumping out flooded buildings, etc. These incidents are responded to without the need for special co-ordination, either internally or between the PRA's.

It is recommended that existing procedures for such events should continue but PRA's are requested to keep such events, when they occur, under continuous review, in the light of any potential escalation, which might require an escalation of the level of response.

Level 2 Response (Orange warnings from Met Éireann) Severe Weather Warnings

All Local Authorities receive email notification from Met Éireann, utilising the generic email address, push notifications and /or texts as per prescribed subscription regarding any weather alert or warnings in affect for their county. Contact with Met Éireanns duty forecaster by the Local Authority SWAT should always be considered to clarify the weather situation in any alert or warning level issued by Met Éireann.

Local Authorities should consider activating Local Coordination arrangements where local conditions demand the monitoring and review of the weather situation and its potential impact. The Local Authority response is as per Local Authority Severe weather plan. The LA should also share all information regarding severe weather with the other two PRAs.

The initial actions may be summarised as follows:

- Consideration of the activation of the Local Coordination Group;
- Alert other Principal Response Agencies (Refer to Major Emergency Plan);
- Notify the DHPLG via telephone number 1800 303 063;
- Continue to respond in accordance with the Winter Service Plan for Roads (if applicable). Prioritise response as necessary;
- Consider any request for assistance from the Defence Forces and Voluntary Emergency Services and Community Organisations if necessary;
- Provide regular updates to the National Coordination Group (if convened);

¹⁴ Normal Winter Weather

- Where required, liaise with the NRA with regard to salt stocks in accordance with National Policy;
- Monitor impact on services and critical infrastructure e.g. water treatment plants, bridges, critical commercial enterprises and resource supplies;
- Provide regular updates to the public via the website, social media, radio and newspapers;
- Assist communities with response.

Level 3 Response (Red warnings from Met Éireann) Exceptional Severe Weather Events

All Local Authorities receive email notification from Met Éireann, utilising the generic email addresses and push notifications and/or texts as per prescribed subscription regarding an updated weather warning for their county.

Local Authorities SWAT continually monitor and assess the weather situation utilising information received from Met Éireann, the OPW, ESB and other sources. The LA will inform other PRAs and D/HPLG where appropriate. The Local Authority will activate its crisis management team and Local Coordination arrangements as detailed in their Severe Weather Plan for all level 3 responses. The Severe Weather Plan is a specific Sub-Plan of the Major Emergency Plan.

Since the Local Authority is the Lead Agency for weather related emergencies and since the Local Authority is normally involved at an early stage in the response to severe weather (gritting roads, pumping out flooded buildings, etc.) it is likely that the Local Authority will normally initiate the first conference call between the PRA's at Senior Management level. However, this does not preclude either An Garda Síochána or the HSE from initiating such a conference call.

In situations where a Major Emergency has not been declared, the Local Authority should make clear to the other PRA's;

- that it is acting as Lead Agency, and
- the relevant co-ordination structures which it is activating.

This information should also be provided to any support organisations, such as the Defence Forces, the ESB and the OPW, which are being invited to participate in the co-ordination structures. Where the initial assessment by a PRA Crisis Management Team, or a first conference call of local PRA senior managers, concludes that there is no need for further action at that time, it is strongly advised that a process for continuous monitoring and evaluation is put in place and provisional arrangements for a further meeting/conference call are agreed.


The initial main actions of the Crisis Management Team are summarised as follows;

- Convene the Local Co-ordination Group to co-ordinate the Inter-Agency response ;
- If a regional emergency, make contact with Senior Management (Tele/ Video conference) in the other PRA's affected (Chief Superintendent, Regional Director of Operations, City/County Manager/ Director of Service) with a view to a conference call to discuss;
 - The impact of the event on the community and each organisation; and
 - Inform the parent Government Department, as appropriate, of the extent of the event and the emerging issues
- Notify the D/PHLG via telephone number 1800 303 063;
- Mobilise additional resources within the Local Authority, if and when required;
- Activate and staff to the Local Authority's Call Centre;
- Continue to respond in accordance with the Winter Service Plan for Roads (if applicable);
- Prioritise response as necessary;
- Consider requesting assistance from the Defence Forces and Voluntary Emergency Services (incl. Civil Defence);
- Provide regular updates to the National Co-ordination Group;
- Liaise with the Transport Infrastructure Ireland (TII) with regard to salt stocks in accordance with national policy (if applicable);
- Monitor impact on services;
- Provide regular updates to the public via the website, social media, local radio, newspapers and National TV/ radio;
- Assist communities with response;
- Consider the benefits of declaring a major emergency and activate the major emergency plan accordingly;
- Alert other Principal Response Agencies (see procedure contained within Major Emergency Plan).

Note: It is possible that in some Wide Area Severe Weather Major Emergencies, there may not be a single site to which PRA resources can respond and for that reason; the co-ordination of the response will be largely conducted at the Local Co-ordination Group level.

Note: It is also possible that two or more Local Co-ordination Groups may be activated. In this situation the chairs of the Local Co-ordination Groups should discuss the possibility of establishing a Regional Co-ordination Group. Alternatively a Local Co-ordination Group may be expanded to become a Regional Co-ordination Group (See Section 6.4, p.18).

9 Appendix B Met Éireann Warnings

 www.met.ie/warnings	STATUS YELLOW <i>Weather that does not pose a threat to the general population but is potentially dangerous on a localised scale.</i>	STATUS ORANGE <i>Infrequent and dangerous weather conditions which may pose a threat to life and property.</i>	STATUS RED <i>Rare and very dangerous weather conditions from intense meteorological phenomena.</i>
Wind <i>Mean wind: 10 minute (higher on coasts/high ground/funnelling effects etc.)</i>	Widespread mean speeds between 50 and 65km/h and/or Widespread gusts between 90 and 110km/h	Widespread mean speeds between 65 and 80 km/h and/or Widespread gusts between 110 and 130 km/h	Widespread mean speeds in excess of 80 km/h and/or Widespread gusts in excess of 130 km/h
Coastal Wind Warnings <i>Mean speeds up to 30 nautical miles offshore</i>	Gale force 8 or strong gale force 9.	Storm force 10.	Violent storm force 11/Hurricane Force 12.
Rain <i>Amounts can be up to double on windward upper slopes & impacts vary with soil moisture deficits</i>	<ul style="list-style-type: none"> • 20mm – 30mm in 6 hrs or less. • 30mm – 40mm in 12 hrs or less. • 30mm – 50mm in 24 hrs 	<ul style="list-style-type: none"> • 30mm – 50mm in 6 hrs or less. • 40mm – 60mm in 12 hrs or less. • 50mm – 80mm in 24 hrs 	<ul style="list-style-type: none"> • Greater than 50mm in 6 hrs or less. • Greater than 60mm in 12 hrs or less. • Greater than 80mm in 24 hrs or less.
Snow/Ice <i>Heavy rain can turn to snow when temperatures are around zero (up to around +4C)</i>	Guidelines only 3cm or greater in 24hrs.	Guidelines only <ul style="list-style-type: none"> • 3cm or greater in 6 hrs • 5cm or greater in 12 hrs • 10cm or greater in 24 hrs 	Guidelines only <ul style="list-style-type: none"> • 10cm or greater in 6 hrs • 15cm or greater in 12 hrs • 30cm or greater in 24 hrs

<p>Low temperature/Ice</p> <p><i>Ground temperatures can be as much as 10 degrees lower than air temps</i></p>	<p>Air minima of minus 3C or minus 4C expected over a wide area (localised lower values will occur).</p> <ul style="list-style-type: none"> <i>Dangerous surfaces due to ice and/or lying snow. Situation improving.</i> 	<p>Air minima of minus 5C to minus 10C (or lower) expected over a wide area.</p> <ul style="list-style-type: none"> <i>Dangerous surfaces due to ice and/or lying snow/freezing rain. Situation stable</i> 	<p>Air minima minus 10C (or below) for three consecutive nights or more. Maxima of minus 2C.</p> <ul style="list-style-type: none"> <i>Dangerous surfaces due to ice and/or lying snow/freezing rain. Situation likely to worsen</i>
<p>High temperature</p> <p><i>High minima can be more impactful than high maxima</i></p>	<p>>27/15/>27</p> <p>Maxima in excess of 27C expected and minima in excess of 15C over 36 hrs</p>	<p>>30/20/>30/20/>30</p> <p>Maxima in excess of 30C for three days and minima of 20C for two nights (consecutive)</p>	<p>As orange criterion, but persisting for five or more consecutive nights.</p>
<p>Thunderstorms</p> <p><i>Possible flash flooding</i></p>	<p>Localised thunderstorms/lightning activity/heavy rainfall.</p>	<p>Widespread thunderstorms/severe lightning activity/heavy rainfall/large damaging hail</p>	<p>Exceptional.</p>
<p>Fog (or freezing fog)</p>	<p>Dense fog over a wide area or pockets of freezing fog.</p>	<p>Dense fog/freezing fog persisting over a wide area causing a widespread and significant driving hazard on national primary routes.</p>	<p>Exceptional.</p>

Table 1 Met Éireann Weather Warning Criteria

Appendix C Relevant Documents

For further information on planning for and response to severe weather emergencies please see the following:

- A Framework for Major Emergency Management
- A Framework for Major Emergency Management, Appendices
- A Guide to Risk Assessment in Major Emergency Management
- A Guide to Planning and Staging Exercises
- A Guide to Working with the Media
- A Guide to Local Co-ordination Centres
- A Guide to Managing Evacuation and Rest Centres
- A Guide to Flood Emergencies
- A Protocol for Multi Agency Response to Flood Emergencies
- Garda Division Major Emergency Plans
- HSE Area Major Emergency Plans
- The HSE Severe Weather Checklist and Associated Guidance Document
- Local Authority Major Emergency Plans
- Local Authority Severe Weather Plans
- Local Authority Flood Hazard Maps
- Local Authority Flood Emergency Plans
- Local Authority Drinking Water Incident Response Plans
- Regional Inter-Agency Media Plans.

Appendix D - Heatwaves

Ireland's location and climate would indicate that the risk of such a heat wave occurring here is low but, with the events experienced during the summer of 2018, it cannot be discounted. Heatwaves can manifest in a number of ways with the most dangerous conditions generated by a 'Spanish Plume' which can lead to high day and night time temperatures, which has the capacity to affect the young, elderly or people with cardiovascular or respiratory illnesses. The PRAs need to consider the main hazards associated with these heat wave conditions and take appropriate and proportionate preparedness measures, including circulating pre scripted public safety information, such as those detailed below. The public safety information needs to be targeted at the projected affected population, appropriate in detail and timely. Local Co-ordination arrangements, as detailed in the Framework (2006), should be considered by the PRAs where forest/wild land fire is threatening populated areas.

Heat waves, such as those experienced in recent years cannot be entirely discounted from the MEM Risk Assessment and Preparedness processes in Ireland. The challenges posed by long periods of hot and dry weather pose very different challenges to the consequences of the more typical stormy weather that Ireland experiences. During these episodes Irish Water may convene their Crisis Management Team who will liaise with the various Local Authorities potentially affected by the adverse weather conditions and with other Government Agencies to ensure that all the States resources are appropriately tasked to ensure the supply of clean drinking water is maintained.

Another feature of periods of long hot and dry weather is the increase in forest/wild land fires. Prevention of these fires is best achieved through public information campaigns and banning controlled burning during risk periods as defined by the Department of Agriculture¹⁵, mitigating against the instances of fires.

It is important that public safety messaging is conducted by the PRAs during these periods in consultation and conjunction with the key agencies, including Coillte and the National Parks Wildlife Services (NPWS) and other Government Departments. Public awareness of the local conditions and the consequences of their actions on the environment need to be emphasised. Measures which have proven to be affective during periods of hot and dry weather is the banning of BBQ and open fires in Coillte and NPWS operated areas, all migratory measures should be considered and relayed through the various media outlets utilised by the PRAs and other key agencies¹⁶. Assistance may be available from the Defence Forces in providing Aerial (Helicopter) and ground firefighting assistance if required". Defence Forces' assistance is

¹⁵ The Department of Agriculture have developed a fire risk warning system;
<https://www.agriculture.gov.ie/forestservice/firemanagement/forestserviceforestfireriskwarningsystem/>

¹⁶ Further guidance, including public safety information can be found in, pp.31-32.

provided on an 'as available' basis. The mechanism for requesting this assistance is detailed in Appendix E, p.33.

Public Safety Information

Pre-scripted public safety messaging should be considered by the PRAs for periods of severe weather events. All of the various media sources available to the agencies should be used, including Departments web sites (HSE, Agriculture, Gov.ie) Social media, radio and newspapers. Key public safety information will help the public make informed decisions regarding their own well-being. Public health message are required to highlight this issue, and are available at; <http://gov.ie/en/severe-weather-2357/>.

In relation to forest/wild land fires the Department of Health and HSE may co-ordinate with G.Ps, and relevant health care practitioners, to engage with the public and relay the key messages during forest / wild land fire episodes which may include leaflets available in surgeries, advice to vulnerable persons etc.

Key Public Safety Messages for Forest/ Wild Land Fires;

Fire Service messaging may include;

- Vegetation may be tinder dry and in line with the advice from the Department of Agriculture, Food and the Marine there should be no controlled burning during periods of very hot and dry conditions;
- While using outdoor amenity spaces (parks, forests and grassland areas, the public need to be additionally careful and not use any BBQs or anything with a naked flame as in the current environment they may cause a wild land fire;
- In the event of a fire the public are asked to call 999/112 and ask for the Fire Service. This should be done as early as possible to prevent the fire front developing. When talking to the emergency services it is important to give as much detail as possible about the location of the fire and any local access routes that can be used to get to it.
- Wild land fires are dangerous, wind direction can change quickly causing the direction of the fire to change. The public are advised not approach forests and wild land area that are on fire.

Health Services messaging may include;

The **general health advice is to stay out of the smoke if possible**, as it is an irritant and can more commonly make both the eyes and throat sore in addition to other health effects.

Provided that there is no risk from the fire itself, please follow the following advice:

- **During episodes with high air pollution from smoke coming from the fire**, all people – particularly those at risk (e.g. children, elderly, and pregnant women; people with existing medical conditions: asthma, other respiratory diseases and cardiovascular diseases; and smokers) – **should stay indoors**;
- **Keep windows closed**. Nevertheless, try to keep homes cool during periods of high temperature [See <https://www.hse.ie/eng/> for further information]
- **Reduce other sources of indoor air pollution**, such as smoking cigarettes, using propane gas or wood-burning stoves, spraying aerosol products, and frying or grilling food;
- People in the immediate area of fire (particularly those at risk and listed above) who **experience any symptoms or have concerns**, should reduce their level of activity and **seek access to prompt healthcare advice**; and
- Continue to follow the recommendations of the local health authorities.

Ozone

High ozone levels can exacerbate health problems and if coupled with poor air quality due to forest/ wild land fires could lead to negative health impacts. The EPA will contact the HSE utilising its notification systems when recordings are deemed high, [www.epa.ie/air/quality/].

Environmental Protection Agency (EPA)

The EPA provides the National Ambient Air Quality Monitoring Network under the Ambient Air Quality Monitoring Programme, which provides real-time air quality information to the public. The EPA has monitoring stations in both urban and rural environments. This increase in air quality information provision will also feed into a more granular Air Quality Index for Health, with associated health advice from the HSE, and will be more effective in for future air quality incidents such as wildfires.

Any requirement for advice or monitoring by the Principal Response Agencies during a protracted forest fire/ wild land fire should be directed through the Radiation Duty Officer (EPA) via An Garda Síochána Communications centre (Harcourt Square), it should be noted however that it would take 1-2 days for any monitor to be set up and for any meaningful monitoring to be conducted. As such the EPA monitoring should be considered for prolonged/ major fire events threatening populated areas.

The EPA currently has a procedure in place if required to respond in a support and advisory role to the PRAs for Major Emergencies. This could include providing advice on interpreting any air monitoring done by Local Authorities / Environmental Health Officers.

Appendix E Local Authority Procedure for Mobilising Air Corps/ Requesting Troops for Wild land Fire-fighting Support

“Defence Forces assistance is provided on an ‘as available’ basis. Requests for assistance should be made by the Local Authority Chief Fire Officer to the National Directorate for Fire & Emergency Management in the Dept. of Housing Planning & Local Government (DHPLG) through the Camp Munster Control on; 1800 303 063 .

DHPLG will then contact the Department of Defence (DoD) and outline the assistance required on the Request for Defence Force Assistance Form (If the form is not immediately available the request can be received in an email and the form completed as soon as possible). The Department of Defence will then contact the Operations Directorate in the Defence Forces. The Defence Forces will assess the requirements and provide assistance in so far as they can having regard to their own operational requirements.

A liaison Officer will be appointed in the Defence Forces to liaise with the Rostered Senior Fire Officer. All ongoing support will be co-ordinated by the Liaison Officer and the RSFO. A record of all the assistance provided will be kept by the Defence Forces operations HQ.

The RSFO should provide;

- Exact location of fire;
- Threat to life;
- Threat to property;
- Threat to Key Critical Infrastructure;
- Resources already deployed.

RSFO’s may also be provided with contact details for designated individuals within the National Directorate for Fire & Emergency Management to seek assistance from the Air Corp during severe hot and dry weather periods. The designated person assesses the request, and if multiple requests are received they will prioritise the resource based on the information received. Local Coordination procedures should always be considered for protracted or extensive wild land /forest fire events.

NI/ UK Requests for Air Corps

All requests from NI/ UK for Air Corps assistance are routed through the Aeronautical Rescue Co-ordination Centre (ARCC) in the U.K. Direct request via any other route must be confirmed by ARCC. The Department of Defence will clear all such requests through the Department of Foreign Affairs & Trade before approving a deployment. Special arrangements are required in advance of military aircraft transiting national borders.

“ARCC may request a link directly with Air Corps on flight plans and deployment details – ARCC have a contact point with the Air Corps. All requests from ARCC should be made to the National Directorate for Fire & Emergency Management in the Dept. of Housing Planning & Local Government (DHPLG) and also notified to the National Director or Assistant Secretary.”

Appendix F - Flood Forecast and Warning

The Government Decision of January 2016 called for the establishment of the National Flood Forecast Warning Service.

Its main components are:

- The Flood Forecast Centre (FFC). The operational element of the NFFWS which will be based in Met Éireann;
- The Guidance for Standards and Performance unit which will be overseen by the OPW.

The Office of Public Works (OPW) in collaboration with Met Éireann is in the process of implementing the Government decision by developing a comprehensive flood forecasting and warning system but the completion of this system is still some way off.

The FFC will develop forecast models to provide this monitoring capability on a National and Catchment level. It is expected that Stage 1 will last five years with a trial of the operational service in 2021. Stage 2 of the Implementation Plan will focus on sub-catchment and local level as well as flood risk from pluvial and ground water.

The system is currently in the establishment stage and it is developing capability in fluvial and coastal modelling. In the meantime, weather information, combined with hydrological information from the OPW and others and local knowledge of river systems, should be used to predict and manage flooding. A Communications Strategy will be developed in Stage 1 by the NFFWS which will identify the most efficient manner of disseminating flood information to its stakeholders i.e. PRAs, general public etc.

Each Local Authority is required by the Guide to Flood Emergencies¹⁷ to have in place Flood Hazard Maps and Flood Emergency Plans. Each Local Authority is also required to have a Flood Assessment Team/Flood Assessment Manager. The role of this Team is to monitor weather conditions and warnings and provide analysis of the flood risk before and during an event, as well as providing specialist advice to the operational services deployed to a flood event. In the case of non-flood emergencies, the SWAT and the Local Authority Crisis Management Team, or other appropriate group within the Local Authority, should consider the forecast/

¹⁷ Guidance Document 11, A Guide to Flood Emergencies

warnings provided, in the context of all other available information, and provide a “Best Guess” assessment of the likely impact of the threatened Severe Weather Event.

Local Authority staff who respond to weather warnings on a regular basis should be familiar with this document and, in particular, the processes for the escalation of a response and co-ordination, within both their own agency and at the inter-agency level, so that weather events, which threaten to be, or are, of unusual intensity and/or are spread over a wide area and/or are likely to continue over an extended period, can be responded to in an appropriate fashion.

Where a Local Authority is dealing with severe weather or flooding that is outside of its normal capacity to deal with, or where it considers that a Major Emergency may have to be declared in the future, the Department of Housing, Planning and Local Government (the Lead Government Department for response to Severe Weather Events) should be informed at an early stage via telephone number 1800 303 063. This number was initially envisaged as a means of communicating to the Department the declaration of a Major Emergency but recent Severe Weather Events have highlighted the importance of early notification to the Department of emerging issues so as to facilitate the activation of national support for the local response.

Appendix G – Checklist

At Local Level

- Each Local Authority should have a Severe Weather Assessment Team;
- Each Local Authority should have a Severe Weather Plan in place (this plan should include arrangements to receive and respond promptly to Severe Weather Warnings and make timely contact with the LA SWAT or designated senior staff of the other PRAs);
- Each Local Authority should have flood risk maps;
- Each HSE Region and Garda Division should have either a Severe Weather Plan or Procedures to manage risks associated with severe weather;
- PRAs are required to prepare pre-cooked public information messaging providing standard advice and guidance documents or leaflets for the public whenever a Severe Weather Event occurs or is threatened.
- Periodically the PRAs should meet and use the opportunity to ensure their severe weather plans are interoperable, and also familiarise their staff with the procedures before the winter season.

At Regional Level

- Develop clear arrangements for the escalation of response to a Regional Co-ordination Group.

At National Level

As detailed in the Strategic Emergency Management Guide (2017)

Appendix H Severe Weather Plan Template for the Local Authority's as the Lead Agency

Local Authority Severe Weather Plan Template

Suggested Plan Distribution List

- Director of Services for Roads, Transportation & Public Safety;
- Roads & Transportation Service;
- Water & Environment Service;
- Severe Weather Assessment Team;
- Crisis Management Team;
- Civil Defence;
- Fire Service;
- Corporate Services;
- Members of Engineer Duty Roster.

This Template gives suggested Severe Weather Plan headings, with some dialogue contained within.

Introduction

This plan applies to the functional area of (Local Authority Name).....

AIM

The aim of this plan is to outline the arrangements by the Local Authority in response to severe weather events (Flood Plans as per the latest 'Guidance Document, A Guide to Flood Emergencies, which should be separated as an additional plan to the severe weather plan detailed within). These arrangements include the monitoring of weather conditions, the dissemination and analysis of information from various sources, the actions required to alert

staff and the community to the impacts of severe weather and the response of various Local Authority departments to the impact of severe weather within their administrative area.

This Severe Weather Plan is a sub-plan of (Insert Local Authority name) Major Emergency Plan. Other sub plans relevant to the response to severe weather emergencies include:

- Flood Plans;
- Winter Service Plan for Roads;
- Evacuation & Rest Centre Plan;
- Drinking Water Incident Response Plan (DWIRP)

OBJECTIVES

The objectives of this plan are to:

1. Detail the receipt and distribution of weather and related warnings;
2. Outline the actions to be taken in response to a severe weather incident within the county;
3. Detail the procedure for activation of the severe weather plan, to include activation of the SWAT and Local Coordination arrangements;
4. Set out a framework for the strategic management of severe weather events in **(Insert Local Authority Area)** building on the coordination arrangements with the other Principal Response Agencies (PRA's) and Principal Emergency Services (PES's) contained in the Major Emergency Plan;
5. Ensure that lessons learned during previous severe weather incidents have been incorporated into current planning;
6. Detail the provision of specific information to the public on severe weather incidents;
7. Detail the impact and consequences of four significant weather conditions for, i.e. Snow and Ice, Storms & Gales and for Drought & Heat.

PRIORITIES

In responding to a Severe Weather Emergency the Local Authority will prioritise actions based on the following principles:

1. The safety, health & welfare of Local Authority staff is paramount. No actions will be taken that will endanger staff;
2. The Local Authority will make every effort within their resource capability to protect the public effected by the severe weather event;
3. The protection of property will be considered after the safety of persons is addressed. The feasibility and practicality of property protection will be considered in the context of the emergency and within the limits of available of resources;
4. The protection of critical infrastructure where safe to do so, should also be considered.

SEVERE WEATHER PREPAREDNESS

This plan is based on the “Framework (2006)”. The Framework underpins major emergency preparedness and response in Ireland. It sets out the arrangements by which the Principal Response Agencies (Local Authorities, HSE and An Garda Síochána) will work together in the management of large-scale incidents. A key recommendation of the Framework is that;

“Each Local Authority should have, as a specific sub-plan of its Major Emergency Plan, a plan for responding to severe weather emergencies, whether a major emergency is declared or not”.

In addition this “Severe Weather Plan” has been produced in accordance with the following guidance documents:

- A Framework for Major Emergency Management – A Guide to preparing a Major Emergency Plan;
- A Framework for Major Emergency Management – A Guide to Severe Weather Emergencies;

Plan Overview

GEOGRAPHICAL CONTEXT

- Overview of county, population centres;
- Critical Infrastructure;
- Commercial activity within the county;
- Rail;
- Rivers & Canals;
- Roads.

SEVERE WEATHER INCIDENTS

The county ofhas in the past experienced to a greater or lesser extent each type of severe weather events as outlined below:

- Flooding
- Frost/Ice/Fog
- Heavy Snow
- Severe Winds
- Thunderstorms
- Heat waves

The impacts from such incidents requiring a response from the Local Authority services include;

- Heavy snow, frost, ice, fog and severe winds affecting communities, infrastructure and transport networks;
- Heat wave conditions.

The Local Authority's Drinking Water Incident Response Plan (DWIRP) would be activated to manage the impact on water supplies caused by drought conditions resulting from an extended heat wave.

SEVERE WEATHER CONSEQUENCES

The most common consequences from the events covered in this severe weather plan include:

- Individuals requiring rescue from their homes, vehicles, etc;
- Restricted driving conditions, roads closed and impassable;
- Isolation and other problems for the elderly and vulnerable;
- Disruption of water supplies;
- Disruption of power supplies;
- Closure of schools, public transport, businesses, etc;
- Disruption of supplies of food, medicines, fuel, etc;
- Problems with feeding and shelter for animals;

- Damage to infrastructure, such as roads, railways, power lines, etc;
- Large scale wildland/bog/forest fires;
- Reduction in air quality due to large scale fires.

The issues for the Local Authority as a Principal Response Agency include:

- Warning and informing the public and other agencies;
- Coordination & Communication;
- Business Continuity;
- Public information;
- Rescue and protection of vulnerable persons;
- Protection of Property;
- Protection of Critical Infrastructure;
- Maintenance of transportation networks;
- Response to transportation incidents.

Responding to Severe Weather

THE FOUR STAGES

There are four distinct stages to the response to severe weather emergencies. They are:

- Planning & Preparedness
- Warning & Alerts
- Response
- Recovery

Planning & Preparedness

Preparing for severe weather requires the following arrangements to be followed on an on-going basis:

- The Severe Weather Plan is in place, updated, exercised and fit for purpose;
- That a review of the Winter Service Plan for Roads and its operation is undertaken each year before the start of the Winter season;
- SWAT Team have been established and/or updated;
- Generic email address/ push notifications to receive all weather warnings have been established;

- Arrangements are in place for disseminating Severe Weather Alerts from Met Éireann and other sources such as the ESB and the OPW;
- Engagement between the Local Authority and local community groups, encouraging and facilitating household and community resilience initiatives;
- Arrangements are in place under the Drinking Water Incident Response Plans for responding to water supply shortages/interruptions;
- All staff members likely to play a leading role are aware of ;
 - the appropriate plans;
 - procedures and systems in place and;
 - their role in any severe weather response;
- Arrangements are in place to monitor impacts of exceptional rainfall including ESB discharge rates on rivers and conditions at previous flood hotspots in the County;
- Arrangements are in place to monitor, Transport Infrastructure Ireland and the Automobile Association (AA) advice on motorway and road conditions;
- Arrangements are in place for responding to Road Services emergencies resulting from severe weather.

WARNING & ALERTS

The Local Authority's response mechanisms can be triggered by the receipt of warnings from a number of sources, including but not limited to:

- The Public Service Severe Weather Warnings from Met Éireann;
- The IceCast Road Weather Information System (RWIS);
- Electricity Supply Board (ESB) discharge information;
- Transport Infrastructure Ireland (TII) Motorway Traffic Control ;
- Office of Public Works (OPW) (<http://waterlevels.ie>), EFAS Notifications (<https://www.efas.eu/>), High Tide Advisories; hydrological information' (www.epa.ie/hydronet);
- Municipal District Engineers;
- Local knowledge of the river systems;
- Flood forecasting and Warning unit to be established in Met Éireann;
- Information provided from the National Directorate for Fire and Emergency Management (NDFEM);
- Irish Water.

MET ÉIREANN WEATHER WARNINGS

The core rationale for issuing Weather Warnings is to protect the lives and livelihoods of all of the nation's citizens, and to mitigate damage to property and disturbance to economic and societal activity in times of severe weather.

CONTACTS MET ÉIREANN

Duty Forecaster

01 8064255 or 01 8065550

Email – forecasts@met.ie

A Weather Advisory/ Alert/ Warning system was introduced by Met Éireann in 2013. This aligns fully with the European MeteoAlarm system. Weather Hazards covered by Met Éireann's weather warnings system are:

- Wind
- Rain
- Snow
- Low Temperatures
- Fog
- High Temperatures
- Thunderstorms
- Coastal Wind Warnings

The target time for the issuing of a warning is 24 hours before the start of the event through the Local Authority's generic email address and push notifications, but a warning may be issued up to 48 hours in advance when confidence is high. Conversely, as situations evolve, warnings may be issued or existing warnings altered on the basis of the latest forecasts/ information inside the 24 hour target time for issuing warnings. Warnings will be received from Met Éireann through the Local Authority's generic email address; it may also receive push notifications and text alerts, where the Authority has subscribed to these systems.

Weather Warnings are presented in three categories:



Status Yellow

Weather that does **NOT** pose a threat to the general population but is potentially dangerous on a localised scale.

Be Aware about meteorological conditions and check if you are exposed to danger by the nature of your activity or your specific location. Do not take any avoidable risks.



Status Orange

Infrequent and dangerous weather conditions potentially may pose a threat to life and property depending on location and activity.

Prepare yourself in an appropriate way depending on location and activity. All people and property in the affected areas may be significantly impacted.

Check your activity/event and delay or cancel as appropriate



Status Red

Rare and extremely dangerous/ destructive weather conditions from intense meteorological phenomena.

Take action to protect yourself and your property. Follow the instructions and advice given by the authorities under **ALL** circumstances and be prepared for exceptional measures.

Multiple weather warnings may be in place at the same time – typically separate wind and rain warnings may issue for the same period and the same locations. Met Éireann continues to work towards impact based forecasting where the impact of the event is the determinant regarding weather warnings.

Met Éireann's RED level weather warnings are just that – meteorological based information put into the public domain for the purposes set out above. They are not mandatory edicts requiring or forbidding specific actions, and should not be regarded as such. The limitations and uncertainties of weather forecasting outlined above need to be borne in mind at all times.

However, the Met Éireann warnings are one very important factor which should be considered by a Coordination Group in deciding if specific additional public safety advice should be issued in any situation. Such advice, for example, in the form of "Get indoors and Stay Indoors" was issued by the National Emergency Coordination Group in relation to both Storm Ophelia and the blizzard conditions associated with storm Emma.

DISTRIBUTION METHODS

The Local Authority have detailed arrangements in place (generic email address, push notifications) for the receipt severe weather information and warnings from the sources as indicated below.

Type of information/ warning /distribution method to pre-nominated Local Authority Personnel who form part of the Local Authority Severe Weather Assessment Team (SWAT).

- Met Éireann 6-Day forecasts, Email notification;
- Met Éireann Severe Weather alerts; Email notification;
- TII Ice Net System; Text notification / Website;
- ESB, River Discharge Levels; Text notification; <https://www.esb.ie/our-businesses/generation-energy-trading-new/hydrometric-information>.
- OPW Hydrological Information Website; <https://waterlevels.ie/>

Plan Response

LOCAL AUTHORITY SEVERE WEATHER ASSESSMENT TEAM

Each Local Authority should have a severe weather assessment team (SWAT) in place to monitor and review information received from Met Éireann and other agencies such as the OPW and the ESB to anticipate the potential impacts of the projected severe weather event.

Where warnings/information indicate the probability of a severe weather event occurring or anticipated, the Severe Weather Assessment Team (SWAT) should meet to consider the forecast/ warnings provided, in the context of all other available information, and provide a 'best guess' assessment of the likely impact of the threatened severe weather event.

This team may include the Director of Services for Roads, Transportation and Public Safety and the membership as required is based on the Duty Engineer Roster contained in the Winter Service Plan with the addition of a representation from the Water and Environment Department, the Chief Fire Officer, the Civil Defence Officer and a Media Liaison Officer.

The Local Authority Severe Weather Assessment Team (SWAT) and Crisis Management Team (CMT) will often have members which are common and interchangeable or two distinct separate teams, depending on the severity of the weather event.

The actions of the Local Authority SWAT are as follows:

- (1) The SWAT (or any other member as necessary) may convene initially through teleconference, then convene a full meeting of the Severe Weather Assessment Team on receipt of the following:
 1. Continuous monitoring of weather forecasts and weather information received;
 2. The SWAT meet to consider the potential impact of the severe weather event;
 3. Consider information received from the National Directorate for Fire & Emergency Management (CMT);
 - All Yellow advisories;
 - All Red Alerts from Met Éireann;
 - All Orange Warnings from Met Éireann for snow/ice/wind/rain;
 - All Orange Warnings from Met Éireann for low temperature warnings;
 - First warning from ESB where reservoir levels are deemed high (numerical value to be ascertained by engineering staff);
 - Any other alert as determined by the SWAT

This meeting will usually take place within a reasonable time of the receipt of the alert or warning from Met Éireann or other source to enable members of the team to assess the alert/warning and consider its impact and any implication for Local Authority services. Every

warning or alert should be considered in the context of other relevant information available to the organisation (such as; information from Ice Cast System, local knowledge of roads, infrastructure, vulnerable communities, etc.).

Additional weather information can be requested from Met Éireann who provide a 24-hour service (Duty Forecaster), which may be consulted for general or specific forecasts (contact details listed on p.42). Depending on the nature of the weather impact assessment, a warning and/or a Severe Weather Plan activation instruction should be issued to all appropriate sections of the Local Authority, as well as to the other Principal Response Agencies and the media as necessary (see activation section of the Severe Weather Plan).

The SWAT will ascertain the requirement to inform the Local Authority's Chief Executive who will make the decision based on the advice of the assessment team to convene the members of the Local Authority Crisis Management Team to manage the event.

Prepare messages for the public and activate the alert system on the Council website, social media etc.

Note: The Regional Steering Group (RSG) shall convene by teleconference for all Met Éireann Red Alert notifications (see Major Emergency Plan for further details). The SWAT shall brief the Chief Executive and/or Crisis Management Team in advance of the RSG teleconference.

The response determined by the Crisis Management Team will depend on the impact assessment e.g. the Roads Section is typically involved in road gritting and other actions in response to a forecast of cold weather. The Assessment Team should follow the example of the process indicating the action to be taken on the receipt of a yellow, orange or red alert flood warning from Met Éireann.

LEVEL OF ACTION

Following the initial impact assessment by the SWAT the likely level of response required is categorised on the basis of a 3-Level system approach as described on pp.48 - 50.

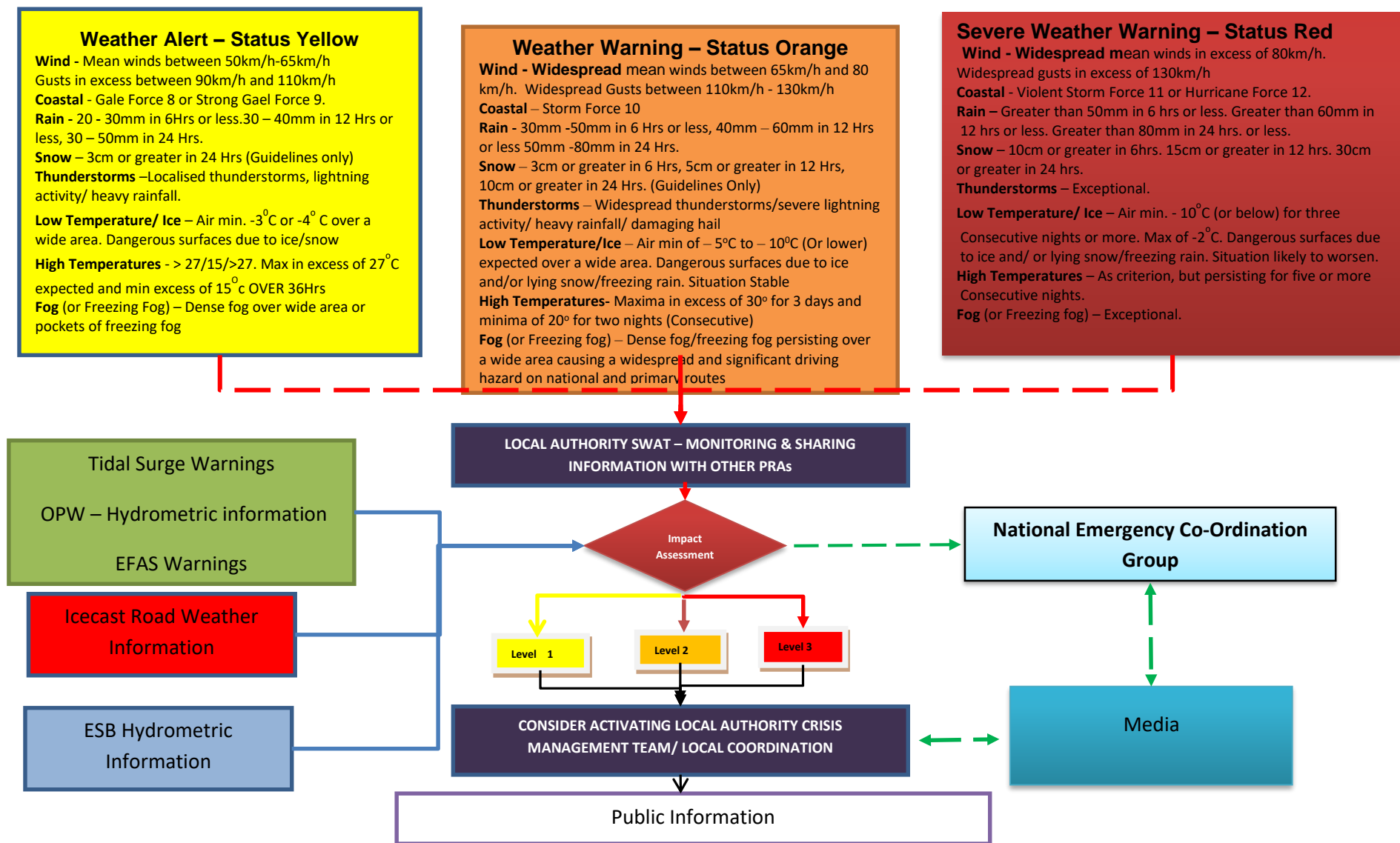


Table 2 Severe Weather Activation Sequence

Level 1 Response (Yellow Alerts from Met Éireann) Routine weather events

All Local Authorities receive email notification from Met Éireann, utilising the generic email addresses and push notifications and/or texts as per prescribed subscriptions regarding weather alerts /warnings for their county.

Local Authorities SWAT continually monitor and assess the weather situation utilising information received from Met Éireann, the OPW, ESB and other sources. Local Authorities have well practiced procedures in place to deal with such events including gritting roads, pumping out flooded buildings, etc. These incidents are responded to without the need for special co-ordination, either internally or between the PRA's.

It is recommended that existing procedures for such events should continue but PRA's are requested to keep such events, when they occur, under continuous review, in the light of any potential escalation, which might require the activation of the Exceptional Severe Weather Events Response Procedures of this document.

Level 2 Response (Orange warnings from Met Éireann) Severe Weather Warnings

All Local Authorities receive email notification from Met Éireann, utilising the generic email address and also push notifications and /or texts as per prescribed subscription regarding any weather alert or warnings in affect for their county. Contact with Met Éireanns duty forecaster by the Local Authority SWAT should always be considered to clarify the weather situation in any alert or warning level issued by Met Éireann.

Local Authorities SWAT should consider activating the Local Coordination arrangements where local conditions demand to monitor the identified weather situation. The Local Authority response is as per Local Authority Severe weather plan.

The initial actions of the Crisis Management Team may be summarised as follows:

- Alert other Principal Response Agencies (Refer to Major Emergency Plan);
- Consideration of the activation of the Local Coordination Arrangements;
- Notify the DHPLG via telephone number 1800 303 063;
- Continue to respond in accordance with the Winter Service Plan for Roads (if applicable). Prioritise response as necessary;
- Consider any request for assistance from the Defence Forces and Voluntary Emergency Services and Community Organisations if necessary;
- Provide regular updates to the National Coordination Group (if convened);

- Where required, liaise with the NRA with regard to salt stocks in accordance with National Policy;
- Monitor impact on services and critical infrastructure e.g. water treatment plants, bridges, critical commercial enterprises and resource supplies;
- Provide regular updates to the public via the website, social media, radio and newspapers;
- Assist communities with response.

Level 3 Response (Red warnings from Met Éireann) Exceptional Severe Weather Events

All Local Authorities receive email notification from Met Éireann, utilising the generic email addresses and push notifications and/or texts as per prescribed subscription regarding an updated weather warning for their county.

Local Authorities SWAT continually monitor and assess the weather situation utilising information received from Met Éireann, the OPW, ESB and other sources. The SWAT will inform other PRAs and D/HPLG where appropriate. The Local Authority SWAT will activate its Local Coordination and crisis management team arrangements as detailed in their Severe Weather Plan for all level 3 responses. The Severe Weather Plan is a specific Sub-Plan of the Major Emergency Plan.

The initial main actions of the Crisis Management Team are summarised as follows;

- Convene the Local Co-ordination Group to co-ordinate the Inter-Agency response ;
- Notify the D/PHLG via telephone number 1800 303 063;
- Mobilise additional resources within the Local Authority;
- Activate and staff to the Local Authority's Call Centre;
- Continue to respond in accordance with the Winter Service Plan for Roads (if applicable);
- Prioritise response as necessary;
- Consider requesting assistance from the Defence Forces and Voluntary Emergency Services (incl. Civil Defence);
- Provide regular updates to the National Co-ordination Group;
- Liaise with the NRA with regard to salt stocks in accordance with national policy (if applicable);
- Monitor impact on services;
- Provide regular updates to the public via the website, social media, local radio, newspapers and National TV/ radio;
- Assist communities with response.

- Consider the benefits of Declaring a major emergency and activate the major emergency plan accordingly;
- Alert other Principal Response Agencies (see procedure contained within Major Emergency Plan);

Note: It is possible that in some Wide Area Severe Weather Major Emergencies, there may not be a single site to which PRA resources can respond and for that reason; the co-ordination of the response will be largely conducted at the Local Co-ordination Group level.

Note: It is also possible that Major Emergencies may be declared in a number of adjoining areas and two or more Local Co-ordination Groups may be activated. In this situation the chairs of the Local Co-ordination Groups should discuss the possibility of establishing a Regional Co-ordination Group. Alternatively a Local Co-ordination Group may be expanded to become a Regional Co-ordination Group (See, p.52).

In the event of a major emergency being declared for a severe weather event, The Local Authority will operate to procedures contained within the Major Emergency Plan (see Major Emergency Plan for further details).

The National Emergency Co-ordination group may meet in the National Emergency Co-ordination Centre in Dublin during or in anticipation of periods of severe weather but will always convene when a Major Emergency has been declared. The D/HPLG will chair the group as lead Government Department, all Government Departments will be represented as detailed in Strategic Emergency Management Guide (2017). The group will conduct a National overview of the situation liaising with Local Authorities and the other PRA's within the affected Regions. A media briefing may be called to disseminate information to the public. The group can be convened in anticipation of a severe weather event as demonstrated in storm Ophelia and Storm Emma.

ESCALATION TO A MAJOR EMERGENCY

Where the impacts of the weather conditions are outside of the normal capacity the Local Authority to deal with, or where it considers that a Major Emergency may have to be declared in the future, the Department of Housing, Planning and Local Government (the Lead Government Department for response to Severe Weather Events) should be informed at an early stage via telephone number 1800 303 063. This number was initially envisaged as a means of communicating to the Department the declaration of a Major Emergency but recent Severe Weather Events have highlighted the importance of early notification to the

Department of emerging issues so as to facilitate the activation of national support for the local response.

The Severe Weather Plan is a specific Sub-Plan of the Major Emergency Plan. In the event of a major emergency being declared for a severe weather event, The Local Authority will operate to procedures contained within the Major Emergency Plan (see Major Emergency Plan for further details). The initial main actions of the Crisis Management Team are summarised as follows;

- Declare a major emergency and activate the major emergency plan;
- Alert other Principal Response Agencies (see procedure contained within Major Emergency Plan);
- Convene the Local Co-ordination Group to co-ordinate the Inter-Agency response ;
- Notify the D/PHLG via telephone number 1800 303 063;
- Mobilise additional resources within the Local Authority;
- Activate and staff to the Local Authority's Call Centre;
- Continue to respond in accordance with the Winter Service Plan for Roads (if applicable);
- Prioritise response as necessary;
- Consider requesting assistance from the Defence Forces and Voluntary Emergency Services (incl. Civil Defence);
- Provide regular updates to the National Co-ordination Group;
- Liaise with the NRA with regard to salt stocks in accordance with national policy (if applicable);
- Monitor impact on services;
- Provide regular updates to the public via the website, social media, local radio, newspapers and National TV/ radio;
- Assist communities with response.

LOCAL AUTHORITY BUSINESS CONTINUITY

The ability of the Local Authority to respond in a severe weather event will be determined by the nature, duration and location of the severe weather event. In some circumstances the day to day operations of the council may be restricted, curtailed or in exceptional situations fully suspended. The safety of the employees of the Local Authority will always be the priority consideration in assessing what activities can continue and when they should be suspended.

Where a severe weather event does restrict the capacity of the Local Authority to provide its normal range of services Business Continuity planning has been developed to ensure the critical services provided by the County Council continue to operate during these times, however this is always contingent on the safety of the employees.

REGIONAL COORDINATION

Where the severe weather event impacts over a wide area, a number of Local Authorities, Garda Divisions or even HSE Regions may be involved. In such a situation consideration should be given to establishing a Regional Coordination Group and structuring the Inter-Agency response on a regional basis. Activation arrangements and further details are included in the “MEM Region East - Plan for Regional Level Co-ordination”. This guidance recognises that during weather events there may be some issues that are best dealt with at local level but others could be better co-ordinated at a regional level. This gives flexibility in the scope of both the LCG and RCG.

Considerations for Each LCG for the establishment of a Regional Coordination Group

A Regional Co-ordination Group can be established in a number of different ways as follows:

1. Where the impact of the Severe Weather Event occurs over all or most of an MEM Planning Region, the members of the Regional Steering Group may decide to activate a Regional Co-ordination Group in one of the designated Local Co-ordination Centres in the Region.
2. Where a number of Local Co-ordination Groups have been activated, the chairs may take the view that a Regional Co-ordination Group should be established. Such a group will normally be located at the Local Co-ordination Centre as a single hub of activity where it's configuration in the view of the chairs, is best positioned (in terms of resources, communications and geography), to co-ordinate the activity of the different Local Co-ordination Groups which are active, while providing a continuity of personnel. The Regional Coordination Group should be clear what functions have been taken on by it, and what functions will remain within the various local coordination groups.
3. Where a Local Co-ordination Group has been activated by the Local Authority within the affected Region, the Chair of the LCG should then initiate a conference call with the Chair(s) of other active LCG's in the region whose areas of operation are affected.

The chairs should discuss;

- Key Issues from the Chair of each LCG;
- Does the emergency require Regional Co-ordination?
- Strategic Aim and Priorities (SA&P) from each LCG;
- Are there similarities between SA&P? Would regional co-ordination assist with delivering some or all of the SA&P?

- Considerations should include, assisting in PRA business continuity, personnel availability and rotation of staff, ease of co-ordination with other stakeholders such as utilities Voluntary Emergency Services and the Defence Forces.

If the decision to convene the RCG has been made by an LCG or the Chairs of the active LCG's within the Region, the following needs to be decided before the conclusion of the initial teleconference;

- What will be co-ordinated by the RCG – all or some of the Strategic Aim & Priorities? Will LCG's and RCG both be required?
- Where – which location is most convenient/ accessible / suitable technology / adequate space. Can members connect with the RCG via teleconferencing?
- Who will be members of the RCG –
 - At least 1 representative from each PRA capable of making decisions on the SA&P identified;
 - From the PRA members - the Local Authority that is most impacted by the weather will chair the RCG).
 - A representative from each of the following should be considered – Defence Forces, Voluntary Emergency Services and Utility Companies;
 - When – Set time and date for the activation of the RCG
 - How
 - Each LCG chair to update the members of their group;
 - Each agency to decide if a rep will be required at the LCG and RCG;
 - Chair of the RCG to mobilise the Inter Agency Information Management Team

These PRA's should then send representatives to participate in the group at the designated LCG, which will then become, de facto, a Regional Co-ordination Group.

Note: The Framework recognises that the designated MEM Planning regions may not always be the most appropriate ones for response. For example, in the case of flooding, the region for response could be based on a river basin or part of a river basin.

Note: During a Severe Weather Event, each Local Co-ordination Group will communicate with the National Emergency Co-ordination Centre, or the Regional Co-ordination Group, as appropriate, through their chairs.

Note: During a Severe Weather Event it may not be practical for all PRA's to send representatives to Regional Co-ordination Group meetings and, in such situations, consideration should be given to the use of teleconferences and/or other technology which can facilitate virtual meetings.

The major advantages of Regional Level Co-ordination are that it facilitates:

- Effective co-ordination across a wide area;
- Better co-ordination with national/regional groups, such as the ESB, the OPW and the Defence Forces;
- Co-ordination with the National Emergency Co-ordination Group.

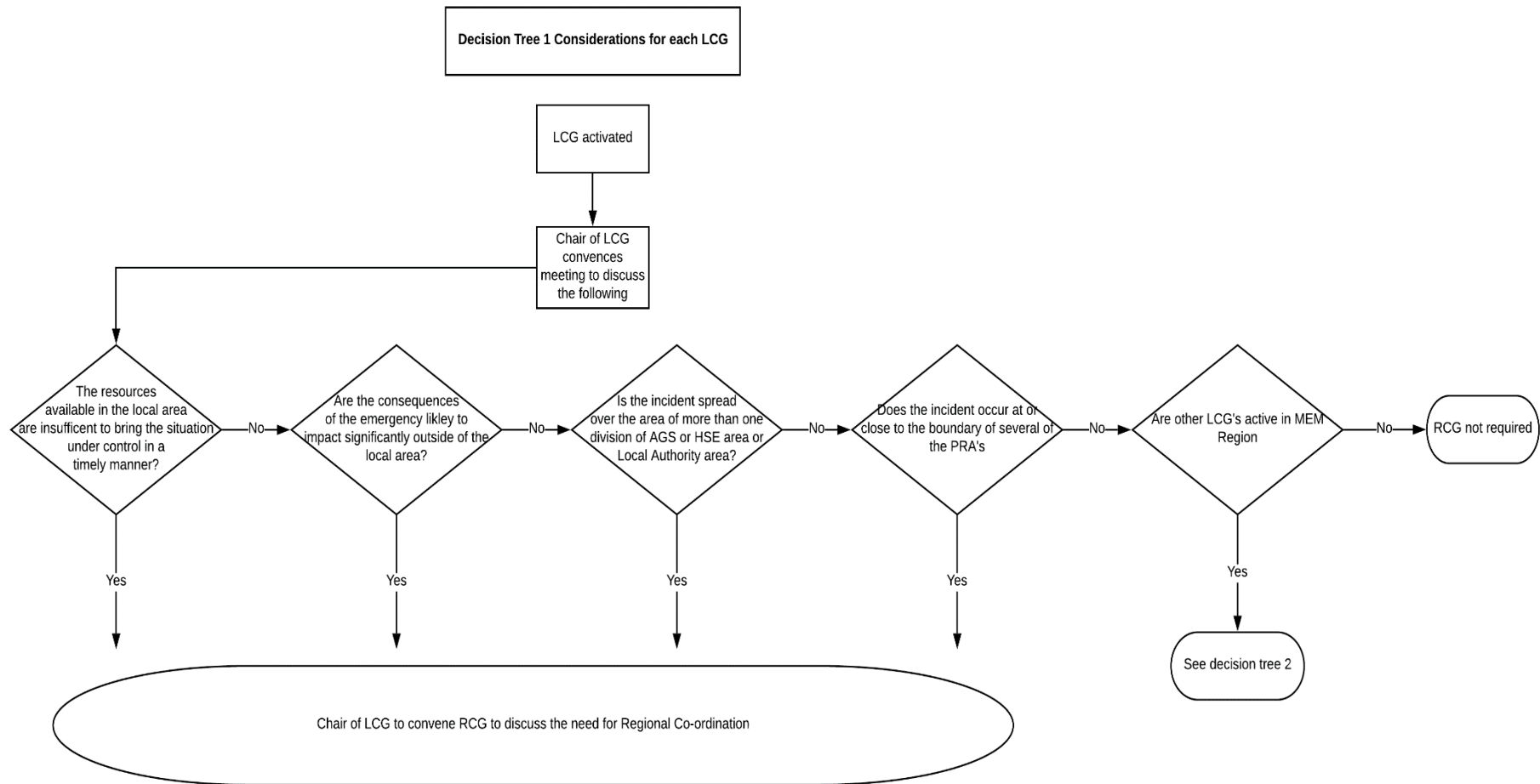


Figure 5 Regional Coordination decision tree 1

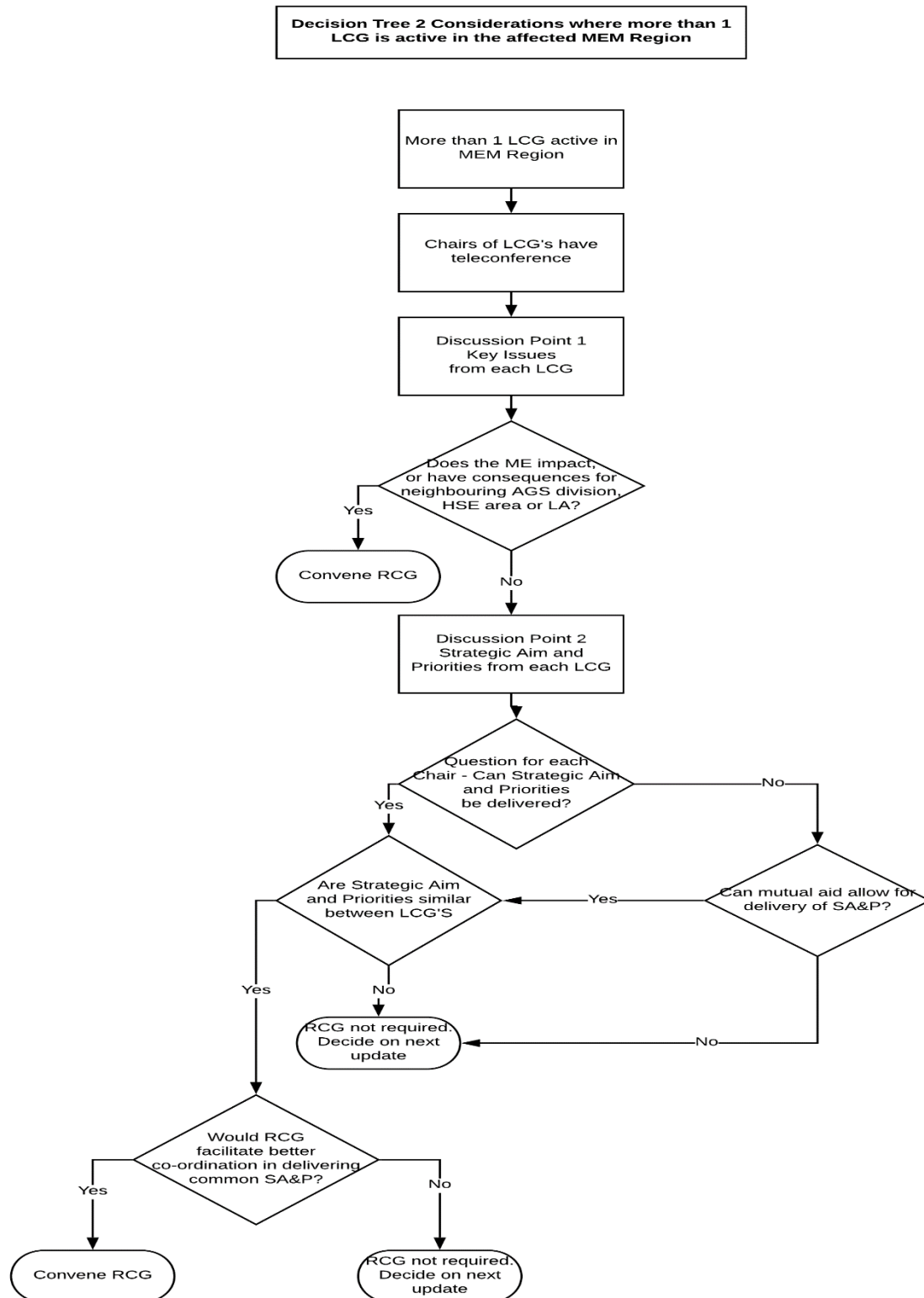


Figure 6 Regional Coordination decision tree 2

NATIONAL CO-ORDINATION

During an exceptional Severe Weather Event, where it is considered appropriate, the National Co-ordination Group may be convened at the National Emergency Coordination Centre, Kildare Street, Dublin. This Group may be activated whether a Major Emergency has been declared or not.

The Local Authority should provide regular updates to the National Co-ordination Group (once established). The frequency of reports between local/regional and national levels will be agreed depending on the nature, severity and extent of the Severe Weather Event.

RECOVERY

A structured transition from response to recovery is critical for Principal Response Agencies in the aftermath of an exceptional severe weather event/major emergency. It is recognised that the Recovery Stage may be as demanding on the Local Authority as the emergency itself. Typical Local Authority recovery responsibilities include:

- Clean up
- Rebuilding the community and infrastructure
- Responding to community welfare needs (e.g. housing)
- Restoration of services
- Estimating damage
- Assisting with Government initiatives and recovery schemes

A significant challenge for Local Authorities may be the restoration of critical infrastructure and public services e.g. water supply schemes, damaged roads/bridges.

Arrangements for co-coordinating the response with other Agencies shall be maintained throughout the transition from response to recovery stage. The Crisis Management Team shall continue to function until the issues arising from the Recovery phase can be dealt with the Local Authority's normal management processes.