



Rialtas na hÉireann  
Government of Ireland

**A Framework for  
Major Emergency Management  
A Guide to Motorway and Dual  
Carriageway Emergencies – Tactical  
Guidance Document 16 – September 2013**

Prepared by the Department of Housing, Local Government and Heritage

[gov.ie/housing](http://gov.ie/housing)

## **A GUIDE TO MOTORWAY & DUAL CARRIAGEWAY EMERGENCIES - TACTICAL**

*'A Framework for Major Emergency Management (2006)'* replaced *'A Framework for Co-ordinated Response to Major Emergency'*, which had underpinned major emergency preparedness and response capability since 1984.

*'A 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.

*'A Guide to Motorway & Dual Carriageway Emergencies – Tactical'* is intended to support *'A Framework for Major Emergency Management'* (2006) and to provide additional guidance on the response by Principal Response Agencies to emergencies on motorways and dual carriageways.

This Guide is the tactical component of a three document series, which also includes guidance at strategic and operational levels.

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:

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November 2022: Since this document was first published, functions of some government departments were transferred with changes to their departmental titles. Some small changes in text have therefore been made.

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## Introduction

This Guide is the second in a series of three Guides which are aimed at supporting the Principal Response Agencies (PRAs) when attending at emergencies on motorways and dual carriageways. The parent document, '**A Guide to Motorway and Dual Carriageway Incidents - Strategic**', addresses strategic co-ordination for such incidents. The objective of this Guide is to provide tactical guidance for Principal Response Agency personnel. A further Guide will be developed to provide a summary of the content herein for operational personnel, to complete the series.

This Guide sets out the co-ordinated working arrangements to enable the PRAs and Principal Emergency Services (PES) to respond to incidents on motorways and dual carriageways at a tactical level. It should be read in conjunction with '**A Guide to Motorway and Dual Carriageway Incidents - Strategic**'. This Guide covers inter-agency responses to Road Traffic Collision (RTC) emergencies on motorways and dual carriageways. When such an incident is declared as a major emergency, each specific agency's Major Emergency Plan (developed in accordance with the '*A Framework for Major Emergency Management*' (2006)) should be implemented without delay.

This Guide has been prepared in consultation with An Garda Síochána (AGS), the Health Service Executive (HSE) and the Ambulance Service, the Local Authorities and the Fire Service, and the National Roads Authority (NRA). The Guide takes account of international good practice in responding to incidents on motorways and dual carriageways.

It should be read in conjunction with the existing Standard Operating Guidelines (SOGs) of each Principal Emergency Service.

This Guide addresses the following areas:

- Roles and responsibilities of the PRAs;
- Roles of support agencies which include the Defence Forces, Civil Defence and the National Roads Authority (and NRA agents);
- Emergency response to incidents;
- Diversion of traffic around or away from the incident;
- Attending to the incident;
- Recovery and removal of casualties;
- Recovery and removal of vehicles and obstructions;
- Collision analysis;
- Collection of evidence;
- Severe weather-stranding of vehicles; and
- Re-establishing normal traffic flows.

This Guide does not address the following activities:

- Surveys;
- Maintenance works/roadwork's;
- Multi-agency checkpoints;
- Planned diversions, for example, due to severe weather conditions;
- Non-emergency events, such as delays due to traffic congestion or increased traffic volumes;
- Vehicle breakdowns; or
- Oil spills.

This Guide aims to provide guidance for all responding agencies and outlines how co-ordination of the PES is achieved during an emergency incident. The purpose of the Guide is to capture co-ordination arrangements; it does not imply a separate command and control structure.

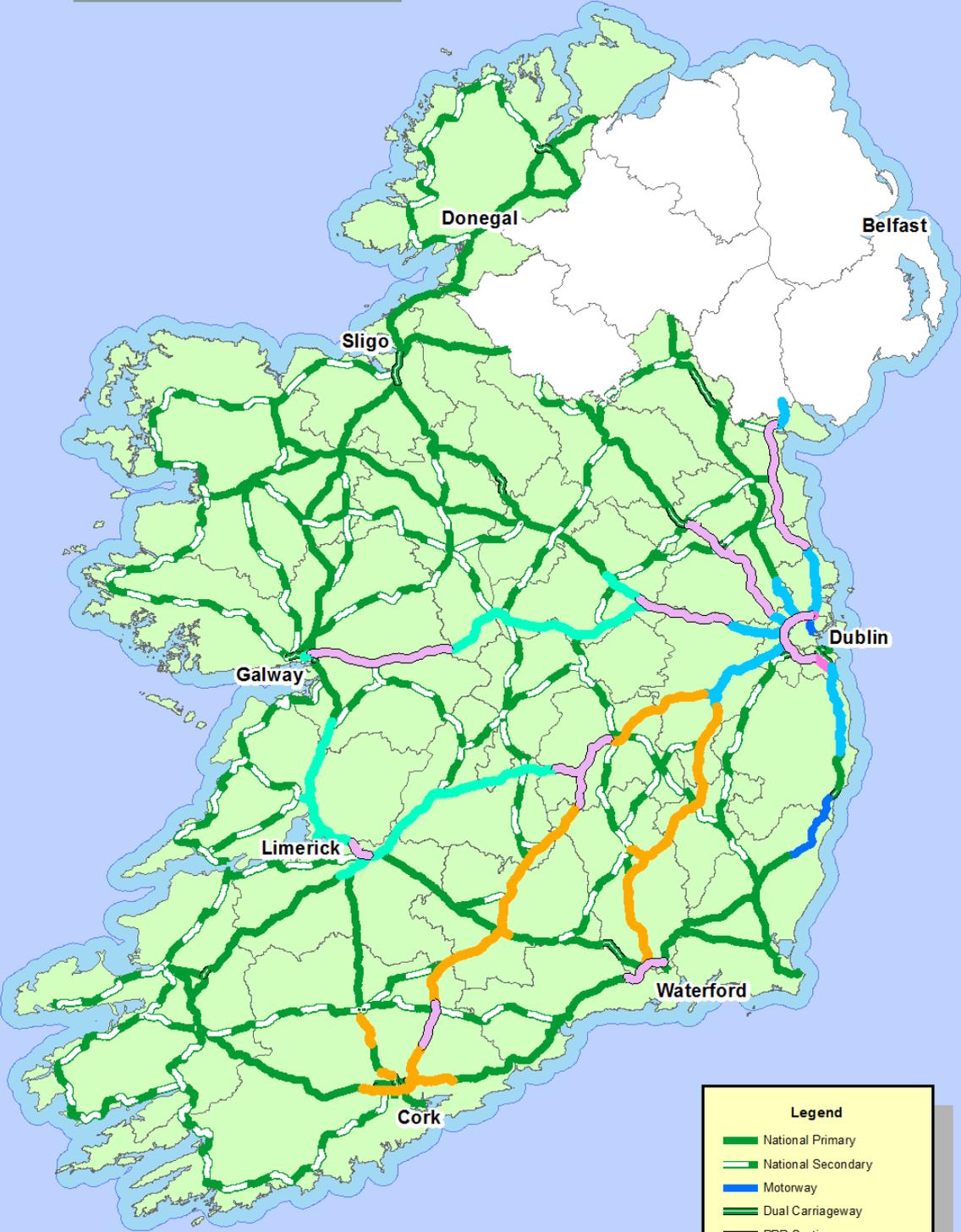
## 2 Road Network in Ireland

The road network in this country comprises some 96,400 km of road in all, made up of approximately 5,400 km of national road and 91,000 km of non-national road (13,200 km of which are regional road and the remaining 77,800 are local road).

Following completion of the major road construction programme over the period from 2000 to 2010, the length of motorway/dual carriageway increased from some 350 km in 2000 to the current total of 1,224 km. This has posed new challenges for the PRAs in responding to incidents on this high-speed network, as well as for the support agencies, such as the NRA and Local Authority Services. In the past practically all of the maintenance work on the national road network was carried out by the Local Authorities. In 2013, the NRA put in place a number of Motorway Maintenance and Renewal Contracts (MMaRCs) to provide for the ongoing maintenance and rehabilitation of these high-speed roads. These MMaRCs include for the provision of support services for the PES in dealing with incidents on the motorway/dual carriageway network. Three MMaRCs are currently in place across the country – Areas A (Greater Dublin Area), B (Midlands & West), and C (South & South East) are outlined on the map overleaf.

Some 330 km of the motorway/dual carriageway network was developed under Public Private Partnership (PPP) initiatives. These sections of roadway were designed and built by the PPP Concessionaires for each scheme, who also maintain and operate these roads for the duration of the concession period (generally 30 years). Incident response support on these sections of the network is provided by the PPP Concessionaires also. The sections of route covered by these PPP schemes are outlined on the map overleaf.

**National Road Network**



**Legend**

- National Primary
- National Secondary
- Motorway
- Dual Carriageway
- PPP Sections
- MMaRC Area A
- MMaRC Area A - Sep 2014
- MMaRC Area B
- MMaRC Area C

### **3. Roles and Responsibilities of the Principal Emergency Services (PES)**

The PES in respect of motorways & dual carriageways consists of:

- ***An Garda Síochána***
- ***Fire Services***
- ***National Ambulance Service.***

The PES are supported by other responders, such as the NRA and its agents, towing companies, the Aero-Medical Services (including the Air Corps and Irish Coast Guard).

The information provided here is a summary and each responder should refer to and comply with their operational policies and procedures.

#### **3.1 An Garda Síochána (AGS)**

An Garda Síochána have responsibility for regulating and controlling road traffic as outlined in section 7 (1) of the Garda Síochána Act 2005. The Road Traffic Acts also provide the legal powers in order to do so. In cases where a major emergency is declared for a road based transport incident, An Garda Síochána are designated as the lead agency. The participation of Garda responders is defined according to divisional responsibilities;

- The primary duty of members of An Garda Síochána on scene is the preservation of life and to maintain a safe work zone and safety margin by controlling traffic and bystanders
- It is essential that members performing such tasks exercise extreme caution and take reasonable care for their own safety, health & welfare and that of any other persons involved, including the controlling of traffic and bystanders
- As necessary, members of An Garda Síochána should provide assistance to casualties until arrival of the Fire Services and the National Ambulance Services
- According to their training, members of An Garda Síochána should offer basic first aid when such assistance is not available from other responders
- The collection of evidence from and the forensic investigation of an RTC is the responsibility of members of An Garda Síochána
- An initial holding statement (press release) may be required in the aftermath of a serious road based incident; this is the responsibility of the Garda Press & Public Relations Office.

### **3.2 Fire Services**

The Fire Service is a section of the Local Authority and is mobilised to emergency incidents based on a Pre-Determined Attendance (PDA). The responsibility of the Fire Service at such emergencies includes;

- Extraction and rescue of casualties from vehicles involved in Road Traffic Collisions (RTCs)
- Extinguishing vehicle fires
- Dealing with incidents involving hazardous materials.

### **3.3 National Ambulance Service**

National Ambulance Service participation in incidents depends largely on the severity of the injuries suffered by casualties. Ambulance response is generally necessitated when multiple or complex injuries call for advanced medical care. The primary duties of the National Ambulance Service are to;

- Provide basic and advanced emergency medical care/treatment of patients at the scene
- Provide emergency transportation of patients to hospital.

#### **Evacuation by Air**

The majority of casualty transportations will be provided by road ambulances. However, the National Ambulance Service has a dedicated Emergency Aeromedical Service (EAS) helicopter asset, provided by the Air Corps and based in Athlone, which is available on a seven days a week/daylight hours basis; although, when a helicopter is required at an incident site, the NACC may request tasking either from the Air Corps or from the Irish Coast Guard (IRCG).

One criterion for the activation of an EAS asset is to 'respond to Major Emergencies'. In the event of a Major Emergency, the NAS may task a number of air assets to the incident site. This may involve the transportation of medical/ambulance personnel to the site of a Major Emergency and/or the evacuation of casualties. The Ambulance Incident Commander at the site will advise and liaise with the other PES Incident Commanders to inform them if an EAS asset is to be utilised.

Where it is considered appropriate, the ultimate decision on whether to land at the road side will be made by the aircraft commander. The Air Corps and IRCG have identified shared designated landing sites countrywide where a casualty can be airlifted 24/7. The locations of these sites are available through the HSE '*Health Atlas*'. A short road ambulance journey to one of these sites may be required if the aircraft cannot get in close to the incident.

### **3.4 Support Responders**

In order to support the work of the PES, other external agencies may be requested to attend the scene. The NRA and towing/recovery responders are some of the external agencies regularly required.

#### **3.4.1 National Roads Authority (NRA Agents)/ Public Private Partnership (PPP) Concessionaires**

The NRA has put in place three contracts nationally for maintenance and incident management. The appointed contractors are available to respond to support the PES at emergencies on motorways or dual carriageways. Upon request from a PES the NRA appointed contractor (contractor designated for that area) will;

- Establish a diversion route and deploy motorway traffic management.
- Assist in the removal of debris
- Remove all traffic management equipment associated with the diversion route (e.g. diversion signs and road cones) on the motorway or dual carriageway
- Respond to and deal with routine environmental incidents and oil spills.

#### **3.4.2 Towing & Recovery**

AGS will generally co-ordinate with the NRA to arrange for the attendance of towing and recovery responders to the scene, when required. Towing and recovery responders are responsible for the safe and timely removal of debris, damaged vehicles and/or the recovery or salvage of goods from damaged vehicles on the motorway.

#### **3.4.3 Local Authorities**

Local Authorities can support emergency incidents on motorways and dual carriageways by;

- Providing the Fire Service response (see Fire Service role)
- Assisting with traffic diversions off motorways and dual carriageways – non motorway or dual carriageway routes
- Provision of technical expertise at environmental incidents
- Provision of some equipment to assist at environmental incidents.

## **4. Scene Management Principles**

The key principle in scene management is that the emergency responders should assess the situation for hazards and risks. The reason that such assessment is given high priority is that it is core to emergency management that rescuers do not become secondary victims of any incident.

A typical assessment for risk would involve observation of the surroundings, starting with the cause of the accident (e.g. oil spillage), expanding outwards to include any situational hazards (e.g. fast moving traffic) and history or secondary information given by witnesses, bystanders or the emergency services.

Once a primary risk assessment has been completed, this should not end the system of checking for ongoing or further risks, but should inform all other parts of the process. If, at any time, the risk from any hazard poses a significant danger (as a factor of likelihood and seriousness) to the emergency responders, they should consider how best to manage the scene including taking account of the safety of the emergency responders themselves.

### **4.1 Resources**

Each PES will dispatch the appropriate resources, in accordance with their respective operating procedures, to incidents on motorways and dual carriageways.

### **4.2 Closures of Motorways/ Dual Carriageways**

Depending on the nature of the incident, it may be necessary to close a section of the motorway or dual carriageway. This decision will be taken by the lead agency in consultation with other representatives of PRAs present.

When deciding whether to close a section of a motorway or a dual carriageway the following factors should be considered;

- The size and position of the safe work zone and safety margin necessary to respond to the incident. For example, is there sufficient width to allow traffic to pass, once the 2m safe work zone and 1.2m safety margin are coned off and delineated.
- In general, a single lane should not be less than 3.0m in width and should not exceed 3.7m.
- The position and location of the vehicle(s) involved in the incident. The decision to close may depend on whether the vehicle(s) are located in the hard shoulder, Lane 1, Lane 2, Lane 3 or Auxiliary Lane 1 of the motorway/dual carriageway.
- The spread of the debris on the motorway/dual carriageway.

- Garda investigative imperatives i.e. preservation of evidence and forensic examination.
- The nature of the incident, e.g. a fire or chemical spill that creates an additional hazard.
- The anticipated duration required to deal with an incident.
- A requirement for a forensic investigation necessitating closure of the motorway in order to preserve evidence.

AGS should liaise with the other PES to determine whether the motorway or dual carriageway should be closed or if it can remain partially operational during the response. In the event that a decision is made to close the motorway or dual carriageway, AGS will implement the road closure with assistance from the NRA. In some cases, a decision may be made by an emergency service to bring traffic to a stop as they approach the scene. This may facilitate a safe establishment of the work zone and allow for a complete recognisance of the scene by the PES. This can be achieved by the use of a 'rolling roadblock' which gradually slows the following traffic in a safe and controlled manner as per that particular PES procedure. It may be possible to lift the road block following an establishment of the safe work zone as per the above guidance and this should be agreed on by the attending PES in a safe and controlled manner.

### **4.3 Emergency Traffic Management (ETM)**

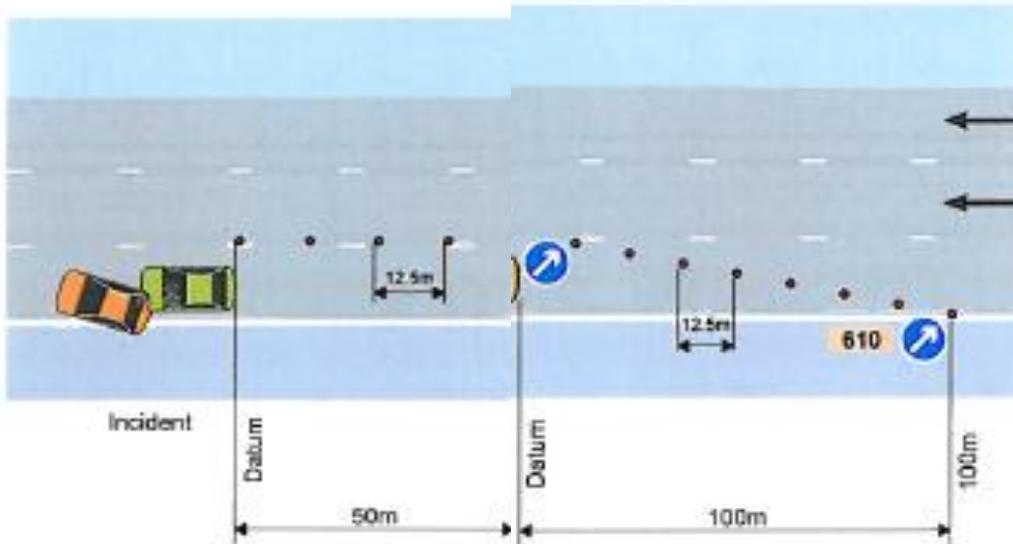
The organised placement of emergency vehicles and traffic warning signage on a motorway can create safer working conditions for emergency responders. The greatest risk to emergency responders occurs during the set-up and make-up phases of the management of a traffic incident. The risks associated with working in moving traffic and the constantly changing emergency scene environment can be reduced through the measures that follow.

#### **4.3.1 Advance Warning Signage**

The requirement to set up advance warning signs depends upon the nature and duration of the incident, the individual site conditions and the dynamic risk assessment undertaken at the scene. Following consultation with An Garda Síochána, where advance warning signage is required on motorways and dual carriageways, it should be provided at 300m/600m and 900m in advance of the incident on the hard shoulder, verge and/or central reservation as appropriate.

Variable Message Signs (VMS) either vehicle or trailer mounted, if available, should be used to replace/augment the Advance Warning Sign at the 600m location on motorways and dual carriageways. PES should meet locally with the NRA contractors to agree a procedure for the response to RTCs. This procedure should include agreement on the arrangements to provide advance warning signs for each segment of motorway and dual carriageway within their jurisdiction.

### **4.3.2 Coning and Signage**



When laying out cones personnel should start from the end of the taper (upstream at the edge of the road) and always watch approaching traffic. The lead-in taper on a motorway or dual carriageway road should not be less than 100m in length per lane closed. Cone spacing should not be greater than 12.5m in the final layout.

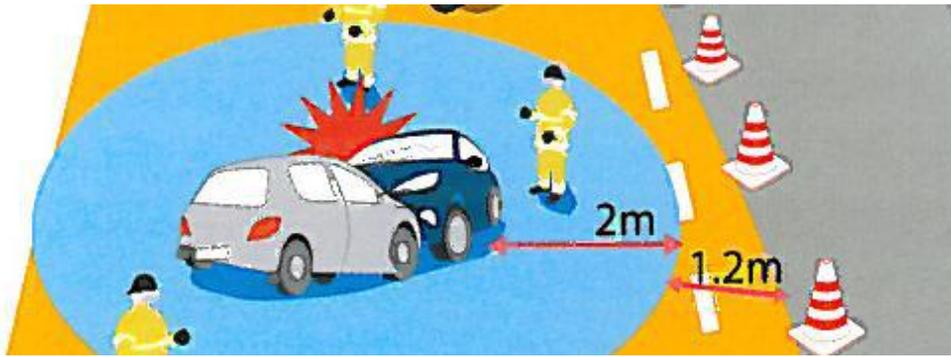
Marking tape or similar should be run between the cones in the vicinity of the works area to warn emergency personnel that they are walking from the working area into the line of passing traffic. Longer taper lengths may be necessary if sight lines are restricted. It is not necessary to provide an exit taper for ETM, unless resources allow and the provision of an exit taper will not impede emergency vehicles.

The coning used with ETM should be supplemented by the use of “keep left/right” signs where appropriate. Depending upon available resources, a minimum of two “keep left/right” signs per lane should normally be used with the lead-in taper.

The first should normally be placed adjacent to the first traffic cone within the taper. The second may be placed either in the centre of the lane being closed or in line with the last cone of the taper. The position of signs within the taper may be varied within the lanes to make best use of the equipment available. When resources permit, the number of signs may be increased to two signs per lane closed. High intensity flashing warning lights should only be used in combination with prescribed traffic signs and not as a means of delineating an incident.

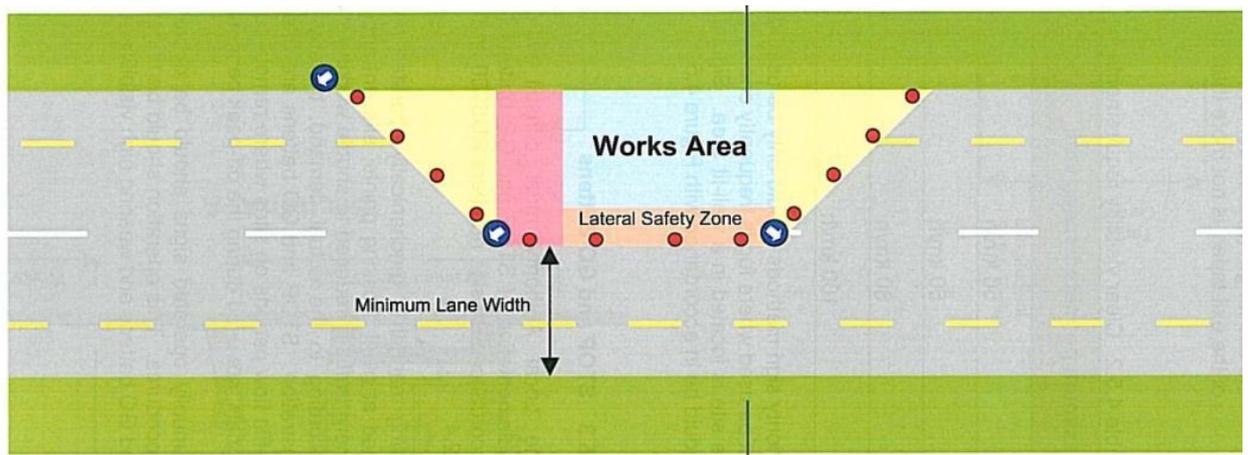
In certain situations, if the incident occurs in Lane 2 or Lane 3, it may still be necessary to close the motorway or dual carriageway even if there is sufficient width of lane remaining for traffic to pass. This may be due to the dangers of deploying emergency traffic arrangements equipment in the outside lane of a motorway.

### **4.3.3 Safe Work Zones**



A safe work zone should be established to provide responders with a work area devoid of threats from oncoming traffic. The safe work zone should extend 2m around the vehicles. Cones should be placed 1.2m beyond the safe work zone, providing a safety margin. This is also known as the lateral safety zone.

Traffic control devices or emergency vehicles should be used to divert traffic and protect the scene beginning at a reasonable distance away from the incident.



### **4.3.4 Co-ordination Points**

Senior officers from each PES may establish a co-ordination point at the scene. The lead agency is responsible for onsite co-ordination. Any co-ordination point should be far enough away from the incident as to keep personnel safe from hazards. An appropriate device should be used to identify the co-ordination point, such as a flashing beacon.

### **4.3.5 Traffic Control**

Traffic control at an incident on a motorway or dual carriageway will be carried out by AGS. In the absence of AGS at an incident, members of one of the other PES may perform traffic control duties, following a dynamic risk assessment by the person in charge of that PES until the arrival of AGS.

Any personnel other than AGS carrying out traffic control should stay off the road (choosing a location that allows them to step further away from the road if necessary) or inside a safety zone, and have appropriate class 3 hi-visibility clothing, torch and good communications (ideally line of sight) adhering to the following rules;

- Be seen
- Take control (be certain you know what you want other road users to do)
- Get road users attention
- Give clear signals (may include the use of Stop/Go Signs)
- Do not stand in the line of traffic.

### **4.4 Hazardous Materials**

If hazardous materials are involved, it is essential that the Fire Service be mobilised as soon as possible to contain any spillages, leaks and/or to rescue casualties. Hazardous materials can contaminate the air, water and soils and may necessitate evacuation of the surrounding area. A Haz-mat clean-up can be complex involving many other agencies. The PES must act promptly, so that contaminants may be dealt with swiftly to minimise any environmental impact.

All responders entering a scene where hazardous materials may be present should take the proper precautions. Where there is a definite risk to personnel, over and above that which would normally exist during emergency operations, the Fire Services may declare a "Danger Area", under their control, as per section 5.5 of '*A Framework for Major Emergency Management*' (2006). Non-essential personnel and the motoring public should be kept outside of the Danger Area cordon.

### **4.5 Towing**

The lead agency will co-ordinate vehicle recovery contractors at the incident scene. The NRA has contracts in place for towing and movement/clearing of damaged vehicles. Members of An Garda Síochána or other authorised personnel will call towing and recovery services (NRA contractors) to the scene should such services be required. Towing and recovery contractors are responsible for the safe and timely removal of debris, damaged vehicles and/or the recovery or salvage of goods from damaged vehicles on the motorway.

It is essential to request the appropriate type of towing and recovery service at an early stage, especially if there is need for help with extraction. Additional heavy equipment, such as winches and cranes, can be invaluable in aiding emergency responders.

Expedient, but safe, removal of debris and vehicles from the roadway is a major goal of incident management. The sooner a towing and recovery unit arrives, the sooner an obstruction can be removed.

Where possible, overturned trucks and non-hazardous cargo should be manoeuvred (pushed, pulled, winched, etc.) to the side of the motorway. In situations where the motorway hard shoulder is too narrow, debris should be relocated to the verge or moved off the motorway altogether under direction from the lead agency.

#### **4.6 Evidence**

Notwithstanding the necessity to perform life-saving and rescue tasks rapidly, the collection of evidence is of paramount importance at any RTC. All agencies operating at such incidents should remain aware of this requirement at all times during the incident.

#### **4.7 Incident Demobilisation (Making-Up)**

The removal of emergency traffic arrangements should be undertaken with the same level of planning and attention as that adopted for its deployment.

All equipment deployed must be re-stowed in the PES vehicles before moving these vehicles from fend off position.

In general, emergency traffic equipment should be removed in a linear operation, working from the incident location towards the advance signage, i.e. the most distant warning sign should be the last sign to be removed. Personnel making up should face oncoming traffic and work as close to the verge as is practicable.

#### **4.8 Reopening of Motorways/Dual Carriageways**

PES need to take into account the consequences of holding traffic on the motorway for long periods. The issue of stranded motorists for long periods is addressed in Appendix I.

The decision to re-open a motorway will be made by AGS in consultation with the NRA (NRA contractors) and the PES present.

## 5. Response Objectives and Incident Priorities

The key objectives for each agency are;

- Ensuring the safety of responding personnel of the emergency services and other agencies
- Ensuring scene safety
- Protecting and rescuing those in immediate danger, and providing appropriate aid and assistance
- Preventing the escalation of the incident and further consequent collisions/threats to those in the vicinity
- Protecting infrastructure, the environment and property
- Ensuring business continuity
- Controlling & regulation of traffic
- Ensuring the motorway/dual carriageway is opened in the quickest possible time consistent with the above objectives.

### **5.1 Arrival of First PES (Emergency Team)**

The first Emergency Team to arrive at an incident should make a situational appraisal – see section 5.1 ‘*A Framework for Major Emergency Management*’ (2006) and request the mobilisation of other PES and supporting agencies, as required (see Section below on ETHANE). AGS (lead agency) will co-ordinate the response in order to achieve a multi-disciplinary approach among the PES. Each PES will manage other supporting agencies under its aegis. The NRA contractors, the Irish Coast Guard, the Emergency Air Ambulance Service and recovery truck operators may also form part of the co-ordinated response to RTC incidents.

### **5.2 ETHANE**

The first PES to arrive at the scene of a RTC on a motorway or dual carriageway should report information on the incident and make a request for assistance, if required, to their control centre as quickly as possible. The ETHANE format for exchange of information messages should be used where possible. PRAs are familiar with the use the **ETHANE** form (see section 5.1, ‘*A Framework for Major Emergency Management*’ (2006)) to structure and deliver an information message;

#### **ETHANE**

- **E**xact location of the emergency
- **T**ype of emergency (transport, chemical etc.)
- **H**azards present and potential
- **A**ccess/egress routes
- **N**umber and types of casualties
- **E**mergency services present and required.

### **5.3 Media**

Diversions and road closures are carried out by AGS and/or appropriate NRA or PPP contractors. Usually, AGS will co-ordinate the release of public information announcements to the media for RTC incidents.

Deployment of VMS messaging will provide real-time information to travelling motorists in advance of the incident scene (see ETM). The release of brief information and warning messages to local and national radio stations and to AA Road Watch is standard practice for serious RTCs. An initial holding statement may be required in the aftermath of a serious road based incident. The local AGS Media Liaison Officer (MLO) will notify the Garda Press & Public Relations Office and co-ordinate a joint media communications approach with other PRAs. All press releases must be issued with the approval of the Garda Press and Public Relations Office.

PRAs, other agencies, contractors or individuals should not speak with the media about emergency operations other than as authorised and in accordance with their own organisations policy. When authorised, comment to the media should be confined to the information directly relevant to the incident and the agencies response and activity at this incident. For detailed guidance on media arrangements, refer to '*A Framework for Major Emergency Management*' (2006), Guidance document No. 5 on media communication and the Media Plan Template.

## **6. Dynamic Risk Assessment**

A key function of the Incident Commander of any agency is dynamic management of risks on the incident ground. This is the continuous process of identifying hazards, assessing risks, taking action to eliminate or reduce risks, as well as monitoring and reviewing risks, in the rapidly changing circumstances of an operational incident.

“Dynamic Risk Assessment” is a process of risk assessment carried out in a changing environment, where what is being assessed is developing as the process itself is being undertaken. This is further complicated by the fact that the Incident Commanders are often faced with coordinating multiple tasks including casualty rescues, traffic management, treatment and transport of casualties before a complete appreciation of all material facts has been obtained. It is imperative; therefore, that an effective risk assessment is carried out at the scene of operations, and that this risk assessment is reviewed and updated as quickly as practicable.

While the dynamic management of risk by each attending PES is continuous throughout the incident, the focus of operational activity will change as the incident develops and it is useful to consider the process in three separate stages:

- (a) The initial stage of the incident
- (b) The development stage of the incident
- (c) The closing stage of the incident.

### **6.1 Initial Stage of Incident**

The following steps should be taken in the course of the initial risk assessment;

1. Evaluate the situation, tasks and persons at risk
2. Select safe systems of work
3. Assess the chosen systems of work
4. Introduce additional control measures
5. Re-assess systems of work and additional control measures.

## **6.2 Development Stage of Incident**

As the incident develops additional factors may make the original course of action inappropriate, for example;

1. New hazards and their associated risks may arise e.g. the discovery of a hazardous material in a vehicle
2. Existing hazards may present different risks
3. Operational activities may produce risks to people and/or the environment
4. Personnel may need to be monitored for signs of fatigue.

Incident Commanders from each attending PES, therefore, need to manage safety by constantly monitoring the situation and reviewing the effectiveness of existing control measures.

## **6.3 Closing Stage of Incident**

The three key activities involved in the closing stages of the incident are;

1. Maintain control
2. Personnel welfare
3. Incident de-brief (see section below on Post Incident Activities).

## **7. Training**

Each PES should provide specific training for discharging their roles and responsibilities when responding to incidents on motorways and dual carriageways. To ensure preparedness, PES and other non-blue light support response agencies (e.g. NRA/PPP) should arrange inter-agency training and drills, especially on new sections of motorway and dual carriageway or sections that are closed for maintenance reasons. Table top exercises will also provide an opportunity to test co-ordination in the context of motorways and dual carriageway emergencies.

## **8. Post Incident Activities**

Where a senior officer of the PES/PRA considers it appropriate to hold a post incidents debrief, he/she will consult with senior officers from the other relevant PES/PRA's. If a debriefing session is recommended, each PRA should participate in the debriefing session to ensure that a full understanding of issues achieved and, where required, corrective action is identified and implemented. The debriefing session should be co-ordinated by the lead agency. A report on the lessons identified from the incident should be sent to

all agencies involved in the incident response and distributed to relevant senior personnel in all agencies.

The following items should be considered;

- Inter-agency co-ordination
- Communication procedures/protocols
- Positive aspects of the response
- Areas for development
- Use of resources.

See section 5.13.3. *'A Framework for Major Emergency Management'* (2006).

# APPENDICES

## **Appendix I – Co-ordinating a Response to Incidents where Motorists are stranded on Motorways/Dual Carriageways**

The Principal Response Agencies (PRAs) may be required to co-ordinate a response to an incident where large numbers of vehicles become stranded on motorways/dual carriageways. During previous severe weather episodes where a rapid response of traffic management and towing resources to congested areas (off ramps etc.) was achieved, it proved effective by preventing the build-up of stranded vehicles. The PRAs and the NRA (seeing as they can monitor traffic volumes) should be vigilant in monitoring traffic flow on motorways/dual carriageways during severe weather and any incidents that may give rise to severe congestion.

Many circumstances, in particular severe weather (freezing temperatures, dense low-lying fog, heavy snow or blizzards, floods, heat waves etc.) can result in extreme congestion, leading to vehicle passengers becoming stranded on a section of the motorway network. Stranding could occur also where a major traffic incident causes the closure of an entire carriageway/motorway section. The duration of such an event may impact severely on vulnerable travellers. The sick, the elderly and children may require assistance within a much shorter time frame than other travellers. The scope of emergency welfare to be provided should be appropriate to the duration, scale and circumstances of the incident. Emergency welfare should not be provided if it will introduce similar or greater risks to the safety and welfare of the public and responders, on or off the motorway/dual carriageway network.

As part of an overall response to a major motorway incident, the PRAs, including Local Authority services, which include Civil Defence, may respond to arrangements for the provision of emergency welfare for stranded motorists. AGS will take on the lead agency role for activating and co-ordinating this type of response. The Civil Defence support role for such incidents will focus on providing humanitarian assistance aligning with the current mandate of Civil Defence within MEM. The Civil Defence Branch, Dept of Defence, will work with Local Authority Civil Defence units to prepare detailed standard operating guidelines to support this role.

The responsibility for ETM should remain with AGS during such incidents.

Civil Defence would endeavour to provide, through the Local Authority;

- Water
- Food
- Blankets
- Ice & snow all weather transport; and
- Casualty/First-aid support.

The Local Authority should support the logistics/supply of the materials required as quickly as possible. The Health Service Executive (HSE) should also provide medical support, as required.

Emergency welfare on motorways/dual carriageways should only be initiated under exceptional circumstances, usually where there are significant numbers of people affected and only after all other incident management measures have been considered. This type of response is likely to be required very infrequently. The response objectives for such an incident should seek;

- (a) To minimise risk to health and well-being of stranded road users and responders
- (b) Where feasible, to overcome any hazard caused by severe weather, or clear an incident, as quickly as possible in order to reduce the period of stranding of road users
- (c) To provide 'on site' basic emergency welfare to road users where necessary
- (d) In extreme circumstances, to carry out evacuation from vehicles to enable welfare support to be provided elsewhere.

## **Appendix II – Supporting Documents**

*'Traffic Collision Investigation Policy'*, An Garda Síochána

*'Out of Vehicle Safety'*, An Garda Síochána

*'Recommendations for scene safety arrangements at road based incidents'*,  
Chief Fire Officers Association

*'Aide-Memoire RTC'* Chief Fire Officers Association

*'Standard Operational Guidelines for RTCs and emergency traffic management procedures'*, National Directorate for Fire and Emergency Management

*'A Framework for Major Emergency Management'* (2006)

Agency Specific Plans – MEM Plans

## Appendix III – Definitions

**Advanced Life Support (ALS):** A set of life saving protocols and skills that extend Basic Life Support to further support the patient with advanced care to include additional Clinical Practise Guidelines to include medication therapies.

**Basic Life Support (BLS):** The level of medical care which is used for victims of life threatening illnesses or injuries until they can be given full medical care at a hospital. It can be provided by trained medical personnel, by other trained emergency service personnel and by laypersons who have received BLS training.

**Casualty:** Any person killed or injured during the road based incident. For the purpose of the Casualty Bureau it also includes survivors, missing persons and evacuees.

**Command:** The process of directing the operations of all or part of a particular service (or group of services) by giving direct orders.

**Control:** The process of influencing the activity of a service or group of services, by setting tasks, objectives or targets, without necessarily having the authority to give direct orders.

**Danger Area:** An area where there is a definite risk to personnel, over and above that which would normally pertain at emergency operations - see '*A Framework for Major Emergency Management*' (2006).

**Emergency Response:** The short term measures taken to respond to situations involving an immediate threat to health, life, property of the environment.

**Emergency Medical Care:** Refers to personnel trained in the use of BLS and ALS skills.

**First Aid:** Immediate medical assistance given in an emergency.

**Hazard:** Any phenomenon with the potential to cause direct harm to members of the community, the environment or physical infrastructure, or being potentially damaging to the economic and social infrastructure.

**Impact:** The consequences of a hazardous event being realised, expressed in terms of a negative impact on human welfare, damage to the environment or the physical infrastructure or other negative consequences.

**Incident:** Any nonrecurring road based incident, requiring a PES response that restricts the continual flow of traffic by reducing motorway capacity, e.g. RTCs, fire, hazardous material spillages, and medical emergencies.

**Incident Management:** A systematic, planned and co-ordinated use of human, organisational, mechanical and technical resources to reduce the duration and impact of incidents, to improve the safety for motorists, to improve outcomes for casualties and incident responders.

**Incident Response:** An action or series of actions taken by responder to restore the motorway to normal operating capacity. This may include aiding a stranded motorist, providing first aid, and directing traffic.

**Major Emergency Plan:** A plan prepared by each of the Principal Response Agencies – see *'A Framework for Major Emergency Management'* (2006).

**National Roads Authority:** A national organisation setup to build and manage the motorway and dual carriage network. For the purposes of this document NRA means NRA itself or it's contracted agents.

**Public Private Partnership (PPP):** companies are responsible for approximately 350km of motorway/dual carriageway on the national roads network and will provide the ETM response for incidents in their sections.

**Principal Emergency Service (PES):** The services which respond to normal emergencies in Ireland, namely An Garda Síochána, the Ambulance Service, the Fire Service, the Irish Coast Guard - see *'A Framework for Major Emergency Management'* (2006).

**Principal Response Agency (PRA):** The agency designated by the Government to respond to emergencies, namely An Garda Síochána, the Health Service Executive and the Local Authorities – see *'A Framework for Major Emergency Management'* (2006).

**Risk:** The combination of the likelihood of a hazardous event and its potential impact.

**Risk Assessment:** A systematic process of identifying and evaluating, either qualitatively or quantitatively, the risk resulting from specific hazards.

**Safe Work Zone:** A work area in and around the incident, which protects the responders from as many external threats as possible. A safe work zone is often created by diverting traffic around an incident. The safe work zone should be a minimum of 2m around the vehicle or vehicles involved in the incident.

**Safety Margin:** Is a lateral safety margin of 1.2m between the 2m Safety Work Zone and delineation of live traffic (road cones).

**Lateral Safety Zone:** The area or space set apart within a motorway or dual carriageway latterly parallel to traffic for the exclusive use of emergency services and protected or so marked by adequate warning signs to be plainly visible at all times while set apart as a safety zone.

**Standard Operational Guidelines (SOG):** Sets of guidelines, describing how the functions required should be achieved in the context of an organisations operational role: applied to functions that lend themselves to a definite or standardised procedure, without loss of effectiveness.

**Support Agency:** In addition to PES, there is a range of support agencies that provide specific supporting roles in the co-ordinated response to the road based incident. For example Local Authorities will provide traffic management resources in deploying diversion routes and assisting in removal of debris.

**Traffic Management:** The process of evaluating and alleviating traffic flow congestion resulting from an emergency incident. Traffic management may involve diverting traffic, closing lanes, closing ramps and placing warning signs.

## Appendix IV – Abbreviations

<b>AGS</b>	An Garda Síochána
<b>ETM</b>	Emergency Traffic Management
<b>HSE</b>	Health Service Executive
<b>MLO</b>	Media Liaison Officer
<b>MMaRCs</b>	Motorway Maintenance and Renewal Contracts
<b>NRA</b>	National Roads Authority
<b>PDA</b>	Pre-determined Attendance
<b>PES</b>	Principal Emergency Services
<b>PPP</b>	Public-Private Partnership
<b>PRA</b>	Principal Response Agency
<b>RTC</b>	Road Traffic Collision
<b>SOG</b>	Standard Operating Guidelines
<b>VMS</b>	Variable Message Sign

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