COLTO

Committee of Land Transport Officials

GUIDELINE DOCUMENT ON THE DEVELOPMENT, IMPLEMENTATION AND MAINTENANCE OF INCIDENT SYSTEMS
GUIDELINE DOCUMENT ON THE DEVELOPMENT, IMPLEMENTATION AND MAINTENANCE OF INCIDENT MANAGEMENT SYSTEMS
On behalf of the
COMMITTEE OF LAND TRANSPORT OFFICIALS (COLTO)

And co-ordinated by the
ROAD TRAFFIC MANAGEMENT CO-ORDINATING COMMITTEE (RTMCC)

Secretariat funded by SARB
PREFACE

The Incident Management Systems Policy and Guideline Document has been prepared by the Incident Management Systems Technical Committee to ensure co-ordination in the development, implementation and maintenance of Incident Management Systems in South Africa.

ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLTO</td>
<td>Committee of Land Transport Officials</td>
</tr>
<tr>
<td>IMS</td>
<td>Incident Management System</td>
</tr>
<tr>
<td>MINICOM</td>
<td>Ministers Committee on Transport</td>
</tr>
<tr>
<td>RTMCC</td>
<td>Road Traffic Management Co-ordinating Committee</td>
</tr>
</tbody>
</table>
Synopsis

Incident Management is the process whereby a set of co-ordinated activities is initiated when an incident occurs on a major road in order to minimize the direct and secondary effects of the incident, as well as to restore normal capacity and safety levels to all affected road facilities as quickly and efficiently as possible.

An Incident Management System involves the co-ordinated and preplanned use of human, mechanical and electronic resources to manage incidents and to restore traffic to normal operating conditions as soon as possible.

The Incident Management Systems Policy and Guideline Document provide an outline on the development, implementation and maintenance of an Incident Management System.
INCIDENT MANAGEMENT SYSTEMS GUIDELINES DOCUMENT

1. INTRODUCTION

In 1991 the National department of Transport initiated Incident Management on a number of national routes in South Africa.

Since then a number of Incident Management Systems have been implemented throughout South Africa, covering a total of approximately 1300 kilometres of the national road network as well as a number of provincial and metropolitan routes. Further Incident Management Systems are to be planned in line with Government Policy in the near future.

The demand for Incident management Systems is increasing rapidly, giving rise to the need to determine a policy to guide the development and maintenance of Incident Management Systems across the country.

The Incident Management Systems National Technical Committee was formed under the Road Traffic Management Co-ordinating Committee which, in turn, falls under the Committee of Land Transportation Officials (COLTO) reports directly to the Committee of Ministers of Transport (MINCOM). One of the key terms of reference of the Incident Management Systems at a national level. This committee, representing road authorities at all three spheres of government, as well as all emergency services across the country, has drawn up this Policy Document.

Prior to outlining the Incident Management Guidelines, this document gives the background to the concept of Incident Management, as well as the goals and objectives of an Incident Management System. It concludes by recommending an action plan for the implementation of incident Management Systems in South Africa.

2. BACKGROUND

In any road system, it is the function of the higher order, or primary roads, such as freeways and national roads, to provide the opportunity for rapid, safe movement of large volumes of traffic.

Road authorities, taking into account the economics of transportation and the expectations of the road users, have developed and applied appropriate design standards for these higher order roads. Such standard include geometric characteristics appropriate to high speed, access control, road traffic signs and safety measures, all of which are aimed at obtaining maximum traffic performance levels within the constraints of topography, cost, land use as well as many other associated issues.

With increased performance comes increased consequences should anything for wrong in the system. In the case of major roads, and especially freeways, these consequences would arise due to high travel demand in the peak periods and random
events such as accidents, surface water after a rain storm, blockades, unrest or animal on the road. The effect of these occurrences on traffic flow is always the same. The sudden reduction in traffic speed causes a shock-wave to be propagated upstream, often leading to multiple vehicle accidents, or lengthy vehicle queues, causing excessive delays to road users. If access to and from the road is limited, drivers will have to remain in the queues until the problem is resolved.

Congestion can be categorized into recurring and non-recurring congestion. Recurring congestion is due to normal or predictable peak flow conditions, while non-recurring congestion is due to random incidents such as adverse weather conditions, accidents, spilled loads in the roadway, etc.

Recurring congestion occurs routinely at predictable locations and times (such as during the peak period). Non-recurring congestion occurs at random locations and times as a result of incidents. Incidents include not only stalled vehicles or accidents, but also events such as freeway maintenance and upgrading operations which can be referred to as planned incidents. It is estimated that approximately 60% of freeway congestion on United States freeways is of the non-recurring type, and these incidents are a far more serious cause of delay than normal peak period congestion.

The reduction in capacity caused by incidents is not proportional to the physical reduction in the roadway width, e.g:

- A shoulder blockage on a three-lane freeway resulting from an incident can cause a reduction in capacity of approximately 25%.
- The loss of one freeway lane due to a blockage can result in a capacity reduction of approximately 33% on a four-lane freeway section.
- A two-lane blockage on a three-lane freeway can cause a reduction in capacity of approximately 80%.

Furthermore, it is not the major incidents that cause the greater proportion of delay. Research undertaken in the USA has revealed that approximately two-thirds of total congestion delay is due to minor incidents which last less than 30 minutes and which are confined mostly to the shoulder, while a third are due to lane-blocking incidents. The duration of the delays caused by incidents is critical, as is the potential for secondary incidents to occur.

Further cost implications of incidents would include aspects such as delays, loss of life and damage to property and to the environment, all of which an Incident Management System can help to minimise.

Road authorities around the world have recognized the need for the dynamic management of incidents so as to minimise their impact. The development of Incident Management Systems is an example of dynamic management.
3. THE CONCEPT OF INCIDENT MANAGEMENT

An incident may be defined as the occurrence of any extraordinary condition or event which results in a reduction in road capacity, or creates a hazard for road users, for a sustained period of time. Any incident, no matter how minor, has the potential to disrupt traffic flow, thereby causing a hazard to motorists.

Incident Management is a term used to describe the process whereby a set of coordinated activities is initiated when an incident occurs on a major road (usually a freeway), in order to minimise the direct and secondary effects of the incident, as well as to restore normal capacity and safety levels to all affected road facilities as quickly and efficiently as possible.

To achieve this, the use of human, mechanical and electronic resources to manage incidents and to restore traffic to normal operating conditions needs to be co-ordinated and preplanned. This is accomplished through the development of an Incident Management System.

The way in which all agencies involved in incidents have agreed to co-operate in terms of communication, incident servicing requirements, organizational policies and operational procedures, is formally documented in an Incident Management Plan.

The Incident Management Plan is used by participants in the incident Management Systems to manage incident scenes. The plan cannot be used to prevent incidents from occurring, however, in ensuring quick and efficient restoration of traffic flow the likelihood of secondary incidents may be reduced.

The need to develop Incident Management Systems which comprehensively describes the activities that take place at an incident has in most instances come about due to four main factors:

- **Emergency factors**: most incidents (especially those on freeways) can have serious direct consequences, primary effects, as well as secondary effects. These can be prevented and/or minimised by the rapid response of agencies to bring the situation under control and to clear incident scene as quickly and efficiently as possible. Effective lines of communication are required for this to be achieved.

- **Resource factors**: each incident differs in nature and severity. “Local” resources can sometimes prove to be inadequate, both in terms of capacity and capability. An inventory needs to be developed to identify the location of resources as well as how they can be mobilized. For example, the planning of alternative routes to be used in the event of a road closure, should lead to the identification of the manpower required to divert traffic onto these routes as well as descriptions of what manpower should be employed to achieve this.

- **Jurisdictional factors**: The issue of areas of jurisdiction has been a source of conflict. Local Authority boundaries when translated into responsibility for
sections of a freeway, are often not clear. Agreement needs to be reached as to which agency has primary responsibility for each section of freeway. The fact that emergency service response is often based on a “line drawn on a map” and not on the reality of which service is able to respond the fastest, can also be problematic. In some cases, services enter into agreements to deal with these issues while in others, existing legislation precludes such agreements. Incident Management formalizes these issues and documents the outcome of deliberations in the form of agreed Response Protocols.

- **Management factors:** The very nature of an incident means that emergency services are working under crisis conditions. Protocols facilitating the basic tenets of team work and co-ordination need to be in place, and roles and responsibilities need to be clarified prior to the services being placed under pressure. In this way, any conflict or misunderstanding that may arise is addressed pr-actively and not at the scene of an incident.

Experience of the implementation of Incident Management worldwide has shown that in most urban and metropolitan areas and along major routes, the interest of all concerned is enhanced by the existence of an Incident Management System.

### 3.1 WHAT IS INVOLVED IN AN INCIDENT MANAGEMENT SYSTEM?

The ideal Incident Management System combines various measures into a comprehensive set of protocols, instruction and procedures that will be effective in dealing with incidents. A system of this nature should meet several requirements, namely:

- Incidents should be detected accurately and rapidly
- The nature of incidents should be determined quickly.
- Information relating to incidents needs to be collected and passed on to the appropriate agencies.
- The roles and responsibilities of the various agencies should be specified, understood and agreed upon.
- Responses to incidents should be appropriate, effective and co-ordinated.
- Quick clearing of both major and minor incidents needs to take
- Traffic management measures need to be applied for the duration of the incident
- Alternative routes should be preplanned and documented, and also show manpower requirements for the diverting of traffic onto these routes.
- Information on traffic conditions and alternative routes needs to be conveyed to motorists.
- Traffic management plans for planned incidents need to be developed and implemented
The following authorities and organization should be involved in Incident Management:

- The emergency services: Fire, Ambulance, traffic, SAPS
- Specialist agencies such as crane hire operators, pollution experts, chemical waste response units, traffic engineers, road maintenance units
- Private emergency services such as private ambulances services and private fire departments
- Private essential services such as tow operator associations
- Road authorities such as: National Department of Transport, Provincial Administration, Local Authorities
- Associations and institutes such as: Automobile Association of South Africa and the Road Freight Association.

Once an incident has occurred, the events that follow can be grouped into five phases. The time taken to execute each of the phases determines the impact on the traffic flow and the delay experienced by road users:

- **Detection**: Establishing the location and confirming the details of an incident so that an appropriate response can be made by the emergency services.

- **Response**: The dispatching of emergency personnel to the incident scene with sufficient information about the incident so that rapid and appropriate action can be taken to minimise the effects of the incident

- **On-scene co-ordination**: Emergency services and other role players working together, taking decision and implementing the decision at the scene, monitoring the effect of the actions taken and ensuring that the wider implications of the incident are minimised.

- **Clearance**: recovering vehicles, wreckage, materials etc. from the road so that it can be fully re-opened to traffic as soon as possible, ensuring the restoration of traffic flow on the road itself, as well as on the alternative routes.

- **Follow up**: post-incident evaluation of response to, and handling of the incident. This includes ongoing monitoring systems as well as internal and multi-disciplinary debriefings.

### 3.2 KEY PREREQUISITES

In order for an Incident Management System to be successful, certain criteria have to be met. These are as follows:

- Cognisance has to be taken of the autonomy of all agencies involved.
• The unique characteristics of each operational area have to be identified and addressed.

• The participants should have ownership or a stake in the process

• Sufficient time should be allowed for dynamic interaction between participating agencies

• Consensus between the agencies has to be achieved, without the alienation of any participant

• The Incident Management System should be realistic, workable and achievable

• Existing resources should be utilized as far as possible, rather than creating new resources in order to minimise the cost implications of implementation.

3.3 BENEFITS OF INCIDENT MANAGEMENT

The following are the benefits demonstrated in those areas where an Incident Management System is in place:

• Reduction in incident duration which leads to improved safety and reduced delays at incident scenes

• Rapid deployment of appropriate resources to ensure that injured people receive appropriate treatment timeously

• Improved on-scene co-ordination

• Improved awareness amongst emergency services of one another’s roles and capabilities

• Improved utilisation of resources

• Formalisation of agreements

• Transfer of principles and procedures onto other roads

• Heightened public awareness of Incident Management

• Reduction in road user costs

• Reduction in economic costs to the economy of the country

• Ensure that low cost methods are used to minimise traffic disruptions on major routes by using available manpower and other resources efficiently
• Aid the reduction of secondary incidents, thereby limiting the cost of accidents and delays for motorists, and

• Ensure that all incidents as defined in this document and hazardous locations are recorded and monitored timeously and accurately.

4. GOALS AND OBJECTIVES OF AN INCIDENT MANAGEMENT SYSTEM

The main goal of an Incident Management System is to establish a comprehensive and co-ordinated response to and management of any road incident, thereby ensuring safe and rapid clearance of the scene. The pursuit of the following objectives will lead to the realization of the main goal:

• Agreement amongst all the organizations/agencies regarding accepted procedures and protocols to be followed in the event of any incident

• On scene co-ordination and co-operation amongst all the organizations/agencies responding to any incident

• Procedures and protocols incorporated in a Guideline Plan for operational application

5. POLICY BACKGROUND

5.1 THE NEED FOR INCIDENT MANAGEMENT IN SOUTH AFRICA

Significant resources have been allocated to develop South Africa’s road and freeway network. Recently, however, funds for this purpose have been reduced and all indications are that during the years to come, funds for the construction of new roads, and also reconstruction and upgrading of existing roads, will be limited.

This, together with the ever-increasing traffic volumes, high accident rates, congestion and the negative impact of incidents on the road system, has necessitated the development and implementation of Incident Management Systems

As it is anticipated that an increasing number of major routes will in future come under pressure, as a result of increasing traffic volumes and further limitations in funding, the need for Incident Management Systems to be developed is becoming more urgent.
6. POLICY

6.1 CRITERIA TO BE CONSIDERED WHEN EVALUATING AND PRIORITIZING THE IMPLEMENTATION OF INCIDENT MANAGEMENT SYSTEMS

In establishing the need for and priority of Incident Management Systems the following criteria should be considered:

- **Traffic volumes:** High traffic volumes usually not only contribute to higher accident rates, but also result in greater consequences when incidents do occur. Traffic volumes, not in keeping with the standard of the road, also lead to an increased rate of incidents and indicate the need for an Incident management System.

- **Heavy motor vehicle volumes:** The volume of heavy motor vehicle traffic on a route is an important factor to consider as incidents involving heavy motor vehicles are generally more severe and take longer to clear than incidents involving light motor vehicles. Routes which carry large volumes of heavy motor vehicle traffic, especially vehicles transporting hazardous materials, should therefore be seriously considered to require an Incident Management System.

- **Accident rates:** Routes experiencing high accident rates are strong candidates for Incident management Systems.

- **Road capacity:** A road which reaches or exceeds its capacity during peak periods (eg daily/holidays) should be considered for the implementation of an Incident Management System as the slightest incident on roads carrying traffic of this nature invariably leads to substantial delays.

- **Lack/Suitability of alternative routes:** Where an alternative route is either not available or is of a standard not suitable to deal with traffic diversions, an Incident Management System is often a solution. The swift opening of affected routes through the operation of an efficient Incident Management System minimises the impact of incidents on the surrounding road network as quickly restores traffic to normal.

- **Location of interchanges/intersections:** Interchanges that are infrequently spaced may pose problems for emergency services accessing an incident scene, and may also delay the re-routing of traffic. Alternatively interchanges and intersections can be closely spaced that re-routing of traffic could become highly complex, causing additional problems with regard to manpower requirements. An Incident Management System should be considered in these circumstances.

- **Topography:** Topographical constraints may make emergency service access to incident scenes difficult. Under these circumstances an Incident Management System which preplans response to these incidents may prove to be valuable.
• **Geometric standards:** The geometric characteristics of a road may be inappropriate for the traffic conditions resulting in an unacceptable accident rate. An Incident Management System could reduce these negative effects.

• **Emergency service resources:** Where shortages in manpower and resources occur it is particularly important to ensure that these resources are utilized in the most efficient manner and that instances of over or under response to incidents do not occur. Incident Management effectively identifies which resources are ideally located and can be efficiently mobilized to overcome these problems.

• **Strategic importance:** Routes of social, strategic and economic importance, as well as routes known to be used to transport hazardous and perishable or high value goods, should receive special consideration.

• **Inter-provincial and international liaison:** Where a route crossed a boundary between provinces/countries to co-ordinate their activities when responding to incidents. This is particularly true when an inter-provincial/international route is closed and traffic needs to be diverted onto an alternative route. An Incident Management System can assist emergency services in these situations by formalizing and co-ordinating response procedures.

• **Public and emergency service safety:** Routes passing through areas which are prone to unrest may require an Incident Management System in order to enhance emergency service response.

• **Environmental/Climatic conditions:** Routes prone to adverse environmental, climatic or natural conditions, such as dust storms, mist, flooding, freezing or snow storm should be considered for an Incident Management System.

The following methodology is recommended when making use of the above indicators:

• A steering committee representing all stakeholders in an area should be convened

• This committee should consider the criteria and weight them to reflect local conditions, and

• An Action plan should be drawn up to prioritise the implementation of Incident Management Systems based on decisions made according to this Policy Document, the indicators and the Guideline Document.

6.2 **Development, Implementation and maintenance**

The process of establishing an Incident Management System should include system development system implementation as well as ongoing monitoring and maintenance.
6.2.1 Development and implementation of incident management systems

- It is recommended that Incident Management Systems should be developed on all national, provincial and metropolitan routes or any other route after their having been identified and prioritised using the aforementioned criteria.

- All incident Management Systems should be developed and implemented according to both the Policy Document and the Guideline Document.

6.2.2 System maintenance and monitoring

Once an Incident Management System has been developed, monitoring and maintenance of the system should take place. This should be done through meetings of the established Steering Committee in order to update protocols and ensure appropriate implementation. Debriefing sessions after major incidents and annual training sessions for new personnel should also form a part of ongoing system maintenance and monitoring software package should be utilized to assist in the evaluation of the effectiveness of every Incident Management System.

Whilst an Incident Management monitoring software package can help determine the efficiency of an Incident Management System, it should be noted that Incident Management is not scientifically quantifiable. The success, or otherwise, of an Incident Management System should primarily be based on stakeholder feedback with statistics being used to support this information.

7 ACTION PLAN FOR INCIDENT MANAGEMENT IN SOUTH AFRICA

Each province should prepare an Action Plan for Incident Management in conjunction with all stakeholders, these being the National and Provincial Departments of Transport, Metropolitan authorities, and most importantly the emergency services in each area. This action Plan should include route evaluation, route prioritization and an implementation plan and funding plan according to the Policy Document.

8 FUNDING

Responsibility for funding Incident Management Systems will rest with the relevant road authority.

9 CONCLUSION

The overall aim of this Policy Document is to provide those organization involved in the provision and operation of the road network in South Africa, as well as emergency service agencies across the country, with a clear statement as to how to
identify where Incident Management Systems should be developed and implemented in the country, along with basic guidelines as to what an Incident Management System should consist of. The purpose of this document is not to rigidly enforce uniformity in all Incident Management System countrywide, but rather to ensure a policy for the development and maintenance of Incident Management Systems. Consequently a degree of flexibility should be applied in using this document.

A Guideline document which gives specific direction and detail regarding the setting up and implementation of an Incident Management System has also been prepared and should be read in conjunction with the Policy Document. Both these documents should be used jointly in developing and Incident Management Action Plan for each province.
LIST OF FIGURES

Figure 1: Suggested Process
Figure 2: Detection and Mobilisation
Figure 3: Communications from Scene
Figure 4: System Maintenance
Figure 5: Number of Incident by Time of Detection
Figure 6: Number of Incident by Day of Week

LIST OF TABLES

Table 1: Schedule of Activities

ANNEXURES

Annexure A: Example of letter to be sent to Chief Executive Officers of Local Authorities
Annexure B: Example of Questionnaire used in Interviews
Annexure C: Example of Principles and Protocols Workbook
Annexure D: Example of Response Protocol Table
Annexure E: Management Team, Co-ordinator and Forward Control Point Guidelines and Roles
Annexure F: Examples of Alternative Route Plan
Annexure G: Examples of IMS Detailed Procedures & Protocols Document
Annexure H: Example of Incident Report Form
Annexure I: Example of Fact Sheet
1. BACKGROUND

The first Incident Management System (IMS) in South Africa was implemented by the National Department of Transport in KwaZulu-Natal in 1991. Since then, numerous other IMSs have been established throughout the country.

Whilst each of these systems is based on the same fundamental principles a need was recently identified by the National IMS Technical Committee for the preparation of national guidelines on the development, implementation and maintenance of IMSs in South Africa. This Technical Committee was established in July 1996. It is a sub-committee of the Road Traffic Management Co-ordinating Committee which, in turn, is a sub-committee of the Committee of Land Transport Officials (COLTO). The overriding objective of the Technical Committee is the co-ordination of IMS at a national level.

2. INTRODUCTION

This document provides a national guideline on the development, implementation and maintenance of an IMS. It aims to ensure that the development of further IMSs throughout the country take place in a consistent and compatible manner. It is recommended that this Guideline Document be read in conjunction with the Policy Document on IMS.

It should be noted that whilst problems may vary by area and, therefore, the characteristics of various IMSs will differ, this document outlines the basic prerequisites for a successful IMS.

3. INCIDENT MANAGEMENT SYSTEM DEFINITIONS AND GLOSSARY

3.1 Incident

The occurrence of any extra-ordinary condition or event which results in a reduction in road capacity, or creates a hazard for road users, for a sustained period of time. An incident is not merely a major accident. It can also be a minor accident, shoulder/lane blockage, spilled load, construction area or special event.

3.2 Incident Management

The process whereby a set of co-ordinated activities is initiated when an incident occurs on a major road in order to minimized the direct and secondary effects of the incident, as well as to restore normal capacity and safety levels to all affected road facilities as quickly as possible.
3.3 Incident Management System

The co-ordinated and preplanned use of human, mechanical and electronic resources to manage incidents and to restore traffic to normal operating conditions as soon as possible.

3.4 Glossary of Terms

Alternative Route: The most suitable road into which traffic is diverted in the event of a road closure.

Clean-up: The clearing of debris and restoration of road surfaces and surrounding area to allow the road to operate safely after an incident.

Central Communication Centre: A 24-hour emergency communication room which takes on the role of channeling and co-ordinating all communication relating to incidents within an IMS area, in terms of agreed protocols.

Co-ordinator: The person elected by the Management Team at the scene of an incident. The role of the Co-ordinator is to ensure decisions are carried out and that the incident runs smoothly. The Co-ordinator also maintains a communication link with the Centralised Communication Centre.

Debriefing: A structured and constructive multi-disciplinary analysis of an incident.

Forward Control Point: the place set up at an incident scene at which the Management Team manages the incident.


Hazardous Material: A material which is harmful to people and/or the environment.

Incident Report Form: A standardize document recording details of various aspects of an incident.

Line Function: Duties performed by services according to internal operating procedures and/or legislation.

Management Team: A team comprising a representative of each emergency discipline on-scene.
**Project Team:** The responsible funding and road authority as well as any consultants appointed to facilitate the development and maintenance of the IMS.

**Steering Committee:** A group of people from the policy/senior management level of the participating services, responsible for guiding the development and maintenance of IMS.

**Task Group:** A group of people from the operational level of the particular services responsible for evolving the Principles and Protocols of Incident Management.

**Working Group:** A group of people from the detailed operational level of the participating services who provide specialist guidance on specific issues. Specialist input may also be obtained from outside the particular services.
4. PROJECT STRUCTURE

It is recommended that an IMS project be structured on two levels; a policy/senior management level and an operational level. At the policy level, a Steering Committee should be set up. At the operational level, a Task Group and, if necessary, Specialist Working Groups should be established. It should be noted that in certain instances due to limited manpower resources within the smaller services, there may well be an overlap of representatives operating at both levels. This may result in a merging of policy-making and operational boundaries and should not be cause for concern. A neutral Project Team should also be established to facilitate the development of the IMS.

The roles of these groups are outlined below:

4.1 Steering Committee (Policy/Senior Management Level)

The Steering Committee comprises members from policy/senior management level. It is responsible for providing guidance at a policy level concerning the acceptability of the principles of an IMS to their own organizations. This committee is also responsible for ratifying the work of the Task and Working Groups and for communicating details of the IMS to the participating organization to the implementation of IMS.

An Inaugural Steering Committee Meeting should be held during the initial stages of the development of the system. Issues to be discussed at this meeting should include the following:

(I) A background to the development of Incident Management

(II) Discussion of the modus operandi of setting up an IMS Including key meeting dates and deadlines

(III) The geographical boundaries of the System

(IV) Confirmation of the participants’ commitment to the System

(V) Ratification of the Steering Committee membership.

It is recommended that the Steering Committee be made up of representatives from the following emergency and non-emergency organization operation within the geographical boundaries of the System:

- Emergency Services, where appropriate:
  - Ambulance & Emergency Medical Services
  - Civil Protection Agencies
  - Fire & Emergency Services
  - Traffic Authorities
  - SAPS
  - Toll Route Operator
* Non – emergency services, where appropriate

- Automobile Association of SA
- Motor Industries Federation
- Road Authorities and Maintenance Departments
- Road Freight Association
- Road Safety Authorities
- South African Road Federation
- Towing Association
- Chief Executive Officers of Local Authorities
- Water Authorities

The Steering Committee should meet at least once a year. It is essential that representatives of the various services who attend Steering Committee meetings are equipped to make decisions on behalf of their services. As far as possible there should be consistency of representation at Steering Committee meetings.

Involvement of the various Chief Executive Officers whose Local Authority Emergency Services are involved in the Incident Management System is recommended. This political level involvement is important order that permission is granted by the Chief Executive Officer for the Local Authority's emergency services to participate in the IMS. Furthermore, as the Project Team may need to motivate for additional resources to the Chief Executive Officer, it is imperative that they are apprised of the IMS and be invited to sit on the Steering Committee. An example of the letter that should be distributed at the outset of the IMS to the Chief Executives is attached as Annexure A.

4.2 Task Group (Operational Level)

The Task Group is made up of operational members of the particular services. The Task Group is responsible for evolving the principles of Incident Management which form the foundation of the System. This group is also responsible for developing detailed Procedures and Protocols for operational application and for developing the IMS Guideline Plan.

Once the development of the System is complete, the Task Group will meet on an ad hoc basis at the request of the Steering Committee. This group may, for example, meet to discuss and resolve a specific operational issue such a communication problems.

4.3 Working Groups (Detailed Operational Level)

The Working Group comprises representatives from the detailed operational level of the participating services. It is responsible for providing specialist guidance on specific issues and carry out the detailed development of aspects of the IMS. Specialist in a specific field may be co-opted onto the Working Group to address a particular issue.
The Working Group should also meet on an ad hoc basis to discuss specific issues. This Group is dissolved once the specific issue has been resolved.

4.4 Project Team

The Project Team is made up of the responsible funding and road authority as well as any consultants. The role of the Project Team is to facilitate the development of a mutually agreeable IMS and to provide a link between the policy and operational levels. It must be stressed that the formulation of an IMS is undertaken primarily by the participating services and that the assistance provided by the Project Team is largely that of facilitation. Care should be taken that the System meets the needs of services and that the views of the Project Team are not imposed on the services. The Project Team must at all times be neutral and not biased towards any one services or discipline.
5. PHASES IN THE DEVELOPMENT, IMPLEMENTATION AND MAINTENANCE OF AN INCIDENT MANAGEMENT SYSTEMS

A three phase process, as illustrated in Figure 1, is recommended in setting up an IMS:

Figure 1: SUGGESTED PROCESS
5.1 System Development

It is recommended that the development of an IMS involve the following steps:

i) Identification of issues/problems
ii) Identification of potential solutions
iii) Development of Procedures and Protocols and
iv) Development of the Guideline Plan

An interactive process which enhances teamwork is strongly recommended during the development of an IMS. Depending on the size of the meeting it is recommended that workshopping procedure be adopted with facilitated small group discussion. The aim of the workshops is to collectively develop an IMS which best meets the requirements of the participating services based on Principles and Protocols acceptable to all the participants.

The Project Team should circulate advance documentation to all participating members prior to the workshop in order that participants are able to fully prepare themselves for the workshop in order that participants are able to fully prepare themselves for the workshop. This documentation may take the form of a number of pertinent questions to facilitate discussion at the workshop. The outcome of the workshop should also be documented and circulate to all involved for confirmation.

It is essential that each IMS that is set up reflects the operational constraints as well as opportunities of the particular area. It is therefore not appropriate to simply “transfer” an existing System developed elsewhere to a new area for which it is being developed.

The successful development of an IMS is dependent upon two factors:

i) The commitment of participating organizations to the successful development of an IMS
ii) The full participation of each organization involved in developing the IMS.

Each of the four steps of system development listed above is described in more detail below:

5.1.1 Identification of Issues/Problems

The initial step in the development of an IMS should be the interviewing of key role players in the proposed IMS. It is recommended that he Chief of each of the major emergency services is interviewed. Interview are a useful means for the Project Team to meet the participating services and to assimilate pertinent information on the problems and opportunities within each organization. Information recommended for collection includes:

- Organisation details
- Management details
- Communication details
- On-scene co-ordination details

A proposed questionnaire to be used in the interview process is attached as Annexure B. Through this process it is possible for the Project Team to identify possible issues/problems being experienced by the services.

5.1.2 Identification of Potential Solutions

Having identified issues and problems through the interview process it is then necessary to develop potential solutions. It is recommended that this be undertaken using the workshopping procedure discussed above. Pre-workshop documentation in the form of a Principles and Protocols Workbook to assist services in preparation for the workshop, should be circulated. An example of this Workbook, should be circulated. An example of this workbook is attached as Annexure C.

The types of issues to be addressed can be grouped into the following categories:

- Response Protocols
- Communication
- On-scene co-ordination
- Alternative Routes

It must be emphasised that the potential solutions must be identified and developed by the participating services, rather than the Project Team. The sections which follow highlight issues as well as their potential solutions, which have been identified as being common across a number of existing systems:

i) Response Protocols

A common problem experienced by emergency services is that of confusion surrounding response boundaries. To ensure the most efficient use of available resources, agreement needs to be reached as to which service has primary and back up responsibility for each section of the road.

Furthermore, emergency service response is often restricted by a line drawn on a map rather than on which service is able to respond the fastest. To deal with these issues some services enter into agreements with each other. Through the IMS it is possible to debate these issues and formally document areas of jurisdiction in the form of agreed Response Protocols.

It is recommended that Response Protocols are developed outlining primary and back-up response for each section of the IMS route for the functions of:

- Traffic
- Fire
- Hazmat
- Rescue
- Ambulance
- SAPS
- Alternative Route (additional traffic control resources)
- Clean-up

These response Protocols should be included in the Guideline Plan.

An example of a response Protocol table can be found in Annexure D.

ii) Communication

A further frequently identified issue identified through the interview process concerns duplication of call out to incident scenes as well as inappropriate response. Duplication occurs when a number of different emergency service control rooms notify other emergency services of the same incident. Inappropriate response occurs where services are notified who may not be the most appropriate in terms of response time, expertise and available equipment.

To overcome these problems the principle of centralised communication is an integral part of the IMS. This principle involves the establishment of a Centralised Communication Centre which is responsible for notification of all services according to agreed response Protocols (as discussed in item (i) above). This will ensure that the correct primary and back-up responders are timeously notified of incidents. It is further recommended that a resource directory is compiled outlining what resources are available and where they are located. This Directory should be utilised by the Centralised Communication Centre during notification of services.

Whilst this protocol may differ in its implementation in different areas, the recommended option is outlined in Figure 2. A call concerning an incident can come into any emergency service’s control centre. This control centre relays information from the caller to the Centralised Communication Centre and mobilises its own staff to the scene. The Centralised Communication Centre is then solely responsible for the notification of other services according to agreed Response Protocols.
It may be identified that, once on-scene, problems of inappropriate notification also occur where each service on arrival immediately requests additional assistance from other organisations through their own control room. These requests are often not based on a sound knowledge of resources and geographic considerations and in reality may not be made to the most appropriate service.

The recommended solution is for all information from the scene concerning the incident to be channelled through the Centralised Communication Centre.

In practice this would mean that if a service requires any secondary response or backup manpower or equipment on-scene from a discipline outside its line function, this would be requested via the Centralised Communication Centre. The Centralised Communication Centre will then do the necessary notification, again according to agreed response Protocols and contact details. This is illustrated in Figure 3.
Figure 3: COMMUNICATIONS FROM SCENE
Once the principle of centralised communications has been agreed to, it is necessary to select a control centre which is able to perform the function of a Centralised Communication Centre.

As a result of the need to work with existing resources, it is recommended that only control centres currently in operation be considered in the selection of a Centralised Communication Centre. Furthermore, the following criteria should be satisfied in a control room if it is to be considered suitable as a Centralised Communication Centre:

- operate 24-hours a day
- no additional funding/staffing required to fulfil function of a Centralised Communication centre
- personnel to have knowledge of the entire area covered
- personnel solely assigned to communications
- widest possible communication network coverage
- voice logger
- computer

The primary role of the Centralised Communication Centre should be to co-ordinate and channel all communications regarding an incident. This task involves:

- receiving all information about an incident
- notifying primary services of an incident
- notifying back-up services of an incident
- notifying back-up services if requested by the Co-ordinator on-scene
- completing an Incident Report Form
- prompting and assisting the Co-ordinator on-scene

It must be stressed that the Centralised Communication Centre has no control function. It does not replace a service’s own control room which will still be responsible for controlling the operation of its particular line function.

In order for the Centralised Communication Centre to be effective and to be notified of as many incidents as possible, members of the public should also be encouraged to report incidents to the Centralised Communication Centre. It is recommended that road signs should be erected informing road users of the number to call when an incident occurs.

iii) On-scene Co-ordination

The issue of who is “in charge” at a particular incident scene is often a source of conflict. As a result of individual emergency service Acts and Powers, team work may not occur, resulting in unco-ordinated actions leading to inefficiencies.

The recommended means of overcoming this issue is via the introduction of the principle of on-scene co-ordination through a system of unified
decision making. This principle ensure that the management of activities at the incident is improved through the establishment of a Forward Control Point, setting up of a Management Team and election of a Co-ordinator:

a) Management Team

Joint decision making based on the best available information, is a key feature of Incident Management. To ensure that this takes place, a multi disciplinary Management team comprising one representative from each service on scene, should be formed. This Team should gather at the Forward Control Point on arrival at the incident.

It must be noted that Incident Management does not supersede any service’s own line function, but ensures compatibility of each service’s individual operating procedures.

As far as possible the representative of each service present on the Management Team should hold a position of authority within their organisation and should be able to make decisions on behalf of their service.

Guidelines on a Management Team and its role can be found in Annexure E.

b) Co-ordinator

To ensure that decision made by the Management Team are co-ordinated and carried out, a Co-ordinator should be elected from within the management team. The Co-ordinator should be elected from within the Management Team. The Co-ordinator is not “in charge” and has not control function at the scene. Rather, the Co-ordinator ensures that decisions made by the Management Team are acted upon appropriately and are communicated to the Centralised Communication Centre.

Guidelines on the function of the Co-ordinator can be found in Annexure E.

c) Forward Control Point

To achieve on-scene co-ordination, all services arriving on scene must be able to locate the place from where the incident is being managed. It is recommended that a Forward Control Point is established at the incident and clearly identified. Guidelines on the establishment of a Forward Control Point can be found in Annexure E.

The development of an IMS ensures that the lack of on-scene co-ordination is resolved though the setting up of a Forward Control Point, the establishment of a Management Team and the election of a Co-ordinator.
iv) Alternative Routes

The duration of an accident can be substantially extended through the use of an unsuitable alternative route. Should an incident necessitate total road closure and the re-routing of traffic, it is essential that the alternative route to be pre-planned and formerly documented and the necessary manpower needed to activate it, identified.

The development of alternative route plans needs to be done in close consultation with the traffic authorities involved in the IMS who have expert local knowledge of the areas. It is also recommended that the Project Team should drive each of the proposed alternative routes prior to formal documentation.

Details, which should be illustrated to this plan, include the following:

- Alternative route
- Incident zone
- Limits of road closure
- Road closure points
- Location of pointsmen
- Manpower requirements
- Special instruction e.g. heavy vehicles not permitted

It is recommended that alternative route maps are printed in red and black tones with all information pertaining to the alternative route printed in red. An example of an alternative route plan can be found in Annexure F.

5.1.3 Development of Procedures and Protocols

During the previous two steps, problems/issues and heir potential solutions will have been identified. The next step involves the development and recording of detailed Procedures and Protocols to formalise these solutions.

The Procedures and Protocols document outlines the agreed course of action relating to incidents to which all participating services must agree to operate. It is important that the Procedures and Protocols are mutually agreed to by all and are reached by consensus.

The detailed Procedures and Protocols document should include the following sections:

- Detection and mobilisation
- Assessment of incident
- Management of incident
- Centralised communication centre
- Debriefings
- Training
- General
An example of an IMS detailed Procedures and Protocols documents may be found in Annexure G.

5.1.4 Development of the Guideline Plan

The IMS Guideline Plan is a document designed to help emergency services manage incidents by providing:

- A step-by-step guide to agreed Procedures and Protocols
- An approved set of alternative routes and
- Approved response Protocols

The Guideline Plan is an operation document for use by emergency service personnel at incident scenes. It is therefore important that the document is easy to use and sturdy and that all personnel are fully trained in its use.

Certain contents of the Guideline Plan may change over time, e.g., Response Protocols. It is necessary, therefore, to ensure that the document can be easily and inexpensively amended. As the System develops and is refined, it may also be necessary to make changes to the documented alternative routes. For this reason, it is recommended that the Guideline Plan be prepared on a computer as opposed to being hand drafted.

The expert local knowledge of the emergency service personnel participating in the IMS should be strongly drawn on in the development of the Guideline Plan.

It is vital that at least all staff at a supervisory level be equipped with a Guideline Plan. However, it is preferable for each emergency service vehicle which responds to incidents on the designated routes to be equipped with a Guideline Plan.

It is necessary that the Project Team keep a close record of the number of Guideline Plans distributed to each service to facilitate any updates.

5.2 SYSTEM IMPLEMENTATION

Once the IMS has been developed, the next phase in the process is implementation. Implementation involves two stages, namely operational training and the launch.

5.2.1 Operational training

The successful implementation of an IMS depends largely upon the degree to which emergency services are trained in its operation application. Two possible options for addressing training needs are suggested.

The first option involves training of key personnel from within each organisation, including a training officer, an operational member, and a control room staff member. Once trained, it is the responsibility of these key personnel to ensure that all their other staff members receive training. If this option is used, the
Project Team must follow up that training has been undertaken and that it is of a satisfactory standard.

The second option involves training by the Project Team of an many operational staff members from each organisation as possible, including a training officer. Whilst this is costly and time consuming, it is the more successful method in that personnel are trained more quickly and thoroughly. Once the majority of the service’s personnel have been trained by the Project Team, it is only necessary for training officers to train new recruits.

For both options to be successful it is important that the training officers of each organisation are retrained by the Project Team when necessary. In addition, multi disciplinary sessions are recommended to ensure a useful cross-pollination of ideas.

It shall be noted that there are measures being taken currently to review and update training of Emergency services.

Details of the recommended training session are as follows:

* Format:

  Workshop format with staff actively participating in the training session

* Duration:

  Approximately 4 hours

* Content:

  i) Background to IMS  
  ii) Fundamental principles of IMS  
  iii) Detailed Procedures and Protocols  
  iv) Guideline Plan  
  v) Monitoring and debriefings  
  vi) Case study  
  vii) Comprehension questions

* Attendance (depending on which option discussed above is selected):

  i) Each staff member who attends incidents on the IMS route  
  ii) Each staff member involved in traffic control on the alternative route  
  iii) Control centre staff  
  iv) Training officers  
  v) Senior and middle management

It is recommended that centralised Communication Centre personnel be trained separately as the focus of their training is on details relating to the principle of centralised communication and their role as the Centralised Communication Centre.
The tendency toward high staff turnover within emergency services makes it impossible for the Project Team to provide indefinite training. It is thus recommended that each organisation be responsible for ensuring that their staff are adequately trained on an ongoing basis by their elected IMS training officer for their organisation.

It is further recommended that training officers attend a specific 1-day training course offered by the Project Team after which an examination should be written and a certificate awarded. Training officers should also be re-tested on a regular basis.

During the course of system maintenance, it may be identified that refresher-training sessions need to be provided by the Project Team. As far as possible these sessions should be approved, as untrained staff cannot be expected to implement IMS. Approval should be granted by either the client or the Steering Committee. However, each organisation must be encouraged to conduct in-house training.

To assist organisation with the task of training, a Training Manual should be prepared by the Project Team providing a comprehensive set of notes on which the training sessions should be based. It is essential that these notes are easily understandable and where budget permits, overhead transparencies included in the training Manual for use by the training officers.

The content of the Training Manual should include sections on:

- Introduction to IMS
- Fundamental Principles
- Procedures and Protocols
- Response Protocols
- Guideline Plan
- Incident report Form
- Monitoring and debriefings
- Case Study
- Comprehension questions

A successful method of enhancing formal training is through the use of simulation exercises. These exercises provide an imitation of conditions at an incident scene in order that trainees have an opportunity to practice applying the Incident Management procedures and Protocols. Although simulation exercises are costly and time consuming to prepare, the benefits of a less theoretical training session are numerous and should be considered in addition to theoretical training.

5.2.2 Launch

Phase 2, the implementation of the System, is completed with the launching of the IMS.
The purposes of the launch is threefold:

i) To formally indicate the commencement date of the newly implemented IMS.

ii) To provide a social occasion at which the involvement of all participants in the development of the System is recognised.

iii) To introduce members of the press to the IMS in order that they can report on its implementation in the media.

Budget considerations will dictate the nature of the launch which could range from the provision of tea and cake to a more formal lunch. Moreover, a small launch may involve a static display of emergency vehicles and equipment whilst a larger one may involve a simulation exercise at which the principles of IMS can be highlighted and wider publicity achieved.

The selection of these activities will largely influence the choice of venue as well as the time allocated to the launch.

Possible items to be included in the programme of events for the launch are as follows:

- Welcome address
- Technical presentation by Project Team
- Guest Speaker (e.g. Provincial Minister of Transport))
- Official presentation of Guideline Plans and Training Manuals

5.3 SYSTEM MAINTENANCE

The third and final phase in the establishment of an IMS, which becomes effective once the IMS has been developed and implemented, is system maintenance.

System maintenance involves ongoing training, monitoring and the holding of regular debriefings. It has been identified that these are key elements in ensuring the success of the IMS. It should also include ongoing meetings with participants in the IMS.

As discussed in section 4.1, it is recommended that the Steering Committee meet annually, however, meetings of the Task Group and Working Group should take place as the need arises to address specific issues.

Figure 4 illustrates the cyclical nature of system maintenance where incident scenes are monitored and, where necessary, debriefed. The lessons learnt through this process are then included in training sessions and fed back to operational staff for implementation at incident scenes.
Figure 4: System Maintenance

MONITORING

DEBRIEFING

TRAINING

FEEDBACK
5.3.1 Monitoring

Monitoring is an essential component of an IMS as it is a means of ensuring that the system is being correctly implemented. It involves ongoing evaluation by the Project Team of the Incident Report Forms, completed by the Centralised Communication Centre, which allows problem areas to be identified.

The Incident Report Form is the basis of the monitoring system. It provides a mechanism for the Centralised Communication Centre to co-ordinate an incident. It also ensures that all incidents are managed consistently and prompts the Centralised Communication Centre staff to ask the Co-ordinator specific questions.

It is suggested that all Incident Report Forms are forwarded to the Project Team as soon as after an incident has occurred as possible but within 24 hours.

An example of an Incident Report Form can be found in Annexure H. A large amount of information is recorded on this form including:

- Incident location
- Nature of the incident
- Vehicles involved
- Chemical spillage details
- Casualties
- Services alerted
- Traffic information

Only the Centralised Communication Centre should complete the Incident report Form based on information received from the incident scene. The quality of the information documented is thus directly dependent on the details communicated from the scene to the Centralised Centre.

NB: This Incident Report Form does not replace the current SAP 352 (a) but seeks to enhance the information.

Once the Incident Report Form has been received by the Project Team, it is necessary for the form to be checked to ensure all details have been completed, are logical and that Response Protocols have been adhered to by all services.

The Incident Report Form is then ready to be captured into the incident database. Data manipulation and extractions should be carried out and monitoring documents produced in the form of reports.

These monitoring reports shall highlight the following:

- The duration of partial or complete closure of the road
- The location of incident clusters
- The time of occurrence of incidents
- The types of vehicles involved in incidents
- Response times
- Resource utilisation

Existing monitoring programs have proved useful for a number of reasons:

i) They have indicated ways in which the application of an IMS can be refined
ii) They have identified specific problems which need to be addressed
iii) They have made certain types of information available to the emergency services to assist them in improving the provision of their service

Two examples of statistics available from an existing IMS are:

Figure 5: Number of incidents by time of detection

This information highlights two significant points:

* 46% of all incidents occurred between dusk and dawn (18:00 – 06:00) which is significant given that traffic volumes are substantially lower during this period
* Approximately 27% of all incidents occurred during the period in which the traffic authorities are on standby (i.e 22:00 – 06:00)

Figure 6: Number of incidents by day of week
This information reveals that:

* Significantly more incidents occurred on Saturdays that other days
* Fridays, Saturdays and Sundays accounted for more than half (53%) of total incidents

Examples of other general information available from the monitoring database includes:

* 84% of incidents were motor vehicle collisions
* 67% of incidents involved single vehicles
* 70% of incidents lasted less than 2 hours
* The capacity of the designated IMS route was affected for 67% of all incidents
* 59% of all incidents involved casualties
* 41% of the total number of incidents occurred on a specific portion of the IMS route

The type of statistics outlined above should be formally documented in an annual Monitoring Report. Easy to read Fact Sheets (maximum four pages) highlighting interesting and pertinent statistics should also be produced during the monitoring period. An example of a Fact Sheet can be found in Annexure I.
5.3.2 Debriefings

Debriefings are meetings facilitated by the Project Team at which representatives of emergency services are called together to constructively discuss the management of a specific incident and not to apportion blame. Debriefings provide the services with the means to discuss any difficulties they may have encountered at a particular incident in a positive and natural environment.

It is recommended that a debriefing should be considered after any of the following types of incidents:

- An incident involving dangerous goods.
- An incident involving road closure, or use of an alternative route for a substantial length of time.
- An incident where the Co-ordinator/any service feels the incident was not handled correctly
- An incident where the Co-ordinator/any other service feels the incident was well handled and would provide a positive learning experience.

It should be made clear to all participants in the IMS that the Co-ordinator or any other services may call for a debriefing. The Project Team may be contacted directly in this regard or the Centralised Communication Centre can be requested to indicated on the Incident Report Form that a debriefing is required.

Debriefing should be multi-disciplinary and involve all services which participated at the incident. It is essential that representatives who were on scene attend the debriefing and that they are not presented by someone else. Services not involved on-scene should be invited to attend the debriefing, however their role should be restricted to that of an observer. Staff from the Centralised Communication Centre as well as staff from the various services control centres who were involved in the incident should also attend. For specific incidents, participating services may request that specialist, such as prosecutors, be invited to attend the debriefing.

To ensure that those individuals present at the debriefing feel at ease to raise issues, it is recommended that all discussion at the debriefing be treated in the strictest confidence. Notes taken at the debriefing should be circulated to attendees only. However, to optimise the benefit of the debriefing, it is recommended that a list of lessons identified during the debriefing be circulated to the Chiefs of all services involved in the IMS.

5.3.3 Training

As discussed in section 5.2.1 above, ongoing training is an essential element of Incident Management and should also form part of system maintenance. It is recommended that the lessons learnt through the monitoring and debriefing process be included in the training sessions. This will in turn ensure that the application of Incident Management is continually being improved upon.
6. SCHEDULE OF ACTIVITIES

As outlined in the Guideline Document thus far, various activities are involved in the development, implementation and maintenance of an IMS. Table 1 lists the sequence in which these activities should take place and suggests an estimated time frame for each.

The time taken to develop and implement an IMS will vary according to whether the system is located in a rural or urban area. Experience has shown that whilst a rural system may take six to eight months to develop, an urban system could take in excess of twelve months as a result of the complexity of problems/issues experienced.

Systems maintenance is an ongoing activity, which, as discussed in section 5.3, will become effective once the IMS has been launched. It should be noted that it may take a number of years before a system operates smoothly.

It is important that is recognised that the success of the IMS will depend largely on continued maintenance of the system.
TABLE 1: SCHEDULE OF ACTIVITIES (Rural System)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
<th>Month 4</th>
<th>Month 5</th>
<th>Month 6</th>
<th>Month 7</th>
<th>Month 8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>System development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interview</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inaugural Steering Committee Meeting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedures and Protocols Task Group Meetings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Response Protocols Working Group Meetings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative Routes Working Group Meetings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guideline Plan Preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Launch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Maintenance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitoring (ongoing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debriefings (ongoing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training (ongoing)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. CONCLUSION

This document provides a national guideline on the development, implementation and maintenance of an IMS, the purpose of which is to ensure consistency and compatibility of IMSs countrywide. It provides the framework and minimum requirements for the setting up of an IMS, based on the successful implementation of IMSs elsewhere in the country.

Given that specific conditions in different local areas may vary, flexibility within this framework will be required.

The IMS Policy Document, which provides a clear statement as to where IMSs should be developed and implemented, must be read in conjunction with this Guideline Document to ensure the orderly implementation of IMSs throughout South Africa.
Annexure A

Example of Letter to be sent to Chief Executive Officers of Local Authorities
20 January 2003-06-19

As per Distribution List

Dear Sir

INCIDENT MANAGEMENT: N2 NORTH SYSTEM

As you may be aware, Incident Management is a comprehensive, co-ordinated response system aimed at restoring freeway capacity quickly in the event of an incident. This is achieved by facilitating co-ordination and co-operation amongst all services responding to freeway incidents. The product of the Incident Management project is an Incident Management Guideline Plan, outlining procedures and protocols as well as alternative routes for operational application.

Incident Management was initiated in KwaZulu Natal in 1991. It has since been extended substantially and, with the exception of the N2 north of Ballito and the N11, is now in operation on the entire National Route network of the Province.

The KwaZulu-Natal department of Transport, who have together with the National Department of Transport, managed and substantially funded the development of the system to date, have agreed to extend Incident Management on the N2 north of Ballito. It is felt that your organisation will have a valuable contribution to make to the development of an Incident Management system in this area and you are therefore cordially invited to attend the inaugural Steering Committee Meeting.

Details of this meeting are as follows:

**Date:** Thursday, 13 February 1997

**Time:** 10:30 (Tea will be served at 10:15)

**Venue:** VIP Room, Civic Centre
Corner Turnbull/Commercial Road Empangeni

The aims of this meeting are:

i) To provide a background to the development of Incident Management in KwaZulu-Natal

ii) To discuss the modus operandi of setting up an Incident Management System for the N2 North

iii) To determine the geographical boundaries of the system

iv) To confirm the participants’ commitment as well as permission, where required, to participate in the system.

Yours faithfully

IMS PROJECT MANAGER
Annexure B

Example of Questionnaire used in interviews
RESPONDENT: NAME: ...............................................................
POSITION: ............................................................................

SECTION 1: ORGANISATION DETAILS

ORGANISATION: NAME ...............................................................
HOURS OF OPERATION.........................................................

EXPLAIN YOUR SHIFTS

......................................................................................................................................
......................................................................................................................................
......................................................................................................................................
......................................................................................................................................

PRIMARY CONTACT (FOR IMS)

NAME: ....................................................................................
TEL: NUMBER: ...........................................................................

PLEASE OUTLINE THE LINE OF COMMAND WITHIN YOUR ORGANISATION (TOWN CLERK, PROVINCIAL HEAD, HOW STRUCTURE WORKS)

......................................................................................................................................
......................................................................................................................................
......................................................................................................................................
......................................................................................................................................
SECTION 2: AREA OF JURISDICTION

PHYSICAL AREA OF RESPONSIBILITY/JURISDICTION

<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>FROM</th>
<th>TO</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRAFFIC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESCUE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMBULANCE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAPS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HAZMAT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ARE YOU ABLE TO GO BEYOND THESE BOUNDARIES? IF YES, FOR WHICH FUNCTIONS E.G. TRAFFIC, FIRE

DO ANY PROBLEMS ARISE FROM BOUNDARY RESTRICTIONS?

ARE THERE Instances WHERE YOUR ORGANISATION WILL NOT ATTEND AN INCIDENT?

ARE THESE BOUNDARIES CLEARLY DEFINED?

ARE THERE ANY OVERLAPS WITH OTHER ORGANISATIONS?
RESCUE

ARE THERE ANY OVERLAPS OR CONFLICTS WITH OTHER ORGANISATIONS?
A)..........................................................................................................................................................................................................................................................
B)..........................................................................................................................................................................................................................................................

PLEASE PREPARE AN INVENTORY OF RESCUE EQUIPMENT
..........................................................................................................................................................................................................................................................
..........................................................................................................................................................................................................................................................

WHAT MANPOWER IS TRAINED TO DO RESCUE?
..........................................................................................................................................................................................................................................................

AGREEMENTS

DOES YOUR ORGANISATION HAVE INFORMAL (BUDDY BUDDY) AGREEMENTS WITH OTHER ORGANISATIONS?
..........................................................................................................................................................................................................................................................

NAMES: ..........................................................................................................................................................................................................................................................
..........................................................................................................................................................................................................................................................

ARE THERE ANY PROBLEMS WITH THESE?
..........................................................................................................................................................................................................................................................

PATROLS

DO YOU PATROL YOUR AREA OF RESPONSIBILITY?
..........................................................................................................................................................................................................................................................

HOW MANY VEHICLES DO YOU HAVE?
..........................................................................................................................................................................................................................................................
ALTERNATIVE ROUTES (TRAFFIC ONLY)

IN THE EVENT OF A ROAD CLOSURE, WILL YOU ASSIST ON THE ALTERNATIVE ROUTES?

......................................................................................................................................

IN THE EVENT OF A ROAD CLOSURE, DO YOU HAVE PRE-DETERMINED ALTERNATIVE ROUTES PLANNED? IF SO WHAT ARE THEY? IF NOT, WHAT WOULD YOU RECOMMEND?

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

DO YOUR SENIOR OFFICERS KNOW THE MANPOWER AND EQUIPMENT NEEDED TO IMPLEMENT AN ALTERNATIVE ROUTE?

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

ARE YOUR OFFICERS TRAINED TO IMPLEMENT THE ALTERNATIVE ROUTES?

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

SECTION 3: COMMUNICATION DETAILS

EXISTING COMMUNICATION NETWORK

DO YOU HAVE A COMMUNICATION CENTRE/RADIO ROOM?

......................................................................................................................................

COMMUNICATION CENTRE: TEL:NUMBER ......................................................................................
(If applicable)

FAX NUMBER......................................................................................

HOURS OF OPERATION: ........................................................................

WHAT HAPPENS AFTER HOURS?

......................................................................................................................................

......................................................................................................................................

......................................................................................................................................

(If not applicable) A/H CONTACT: ...............................................................

A/H TEL. NO. ......................................................................................
PLEASE GIVE DETAILS OF THE FOLLOWING:

BAND WIDTHS (E.G 68 TO 88 MHZ, 136 TO 172 MHZ)

......................................................................................................................................
......................................................................................................................................

FREQUENCIES (E.G 154, 75 MHZ AND 155, 25 MHZ)

......................................................................................................................................
......................................................................................................................................

IS YOUR SERVICE PLANNING ANY UPGRADES IN YOUR RADIO NETWORK WITHIN
THE NEXT 3 TO 6 MONTHS? IF YES, PLEASE STATE

......................................................................................................................................
......................................................................................................................................

IS YOUR SERVICE PLANNING ANY UPGRADES IN YOUR RADIO NETWORK WITHIN
THE NEXT 3 TO 6 MONTHS? IF YES, PLEASE STATE

......................................................................................................................................
......................................................................................................................................

TO WHICH ORGANISATIONS CAN YOU CURRENTLY COMMUNICATE BY RADIO?

CONTROL CENTRE: ....................................................................................................
.................................................................................................................................
.................................................................................................................................

MOBILES ..........................................................................................................
.................................................................................................................................
.................................................................................................................................

DO YOU HAVE ANY COMMUNICATION PROBLEMS (E.G DEAD SPOTS, REPEATERS)?
......................................................................................................................................

DO YOU HAVE A VOICE LOGGER?
......................................................................................................................................

ARE THE COMMUNICATIONS CENTRE STAFF SOLELY ASSIGNED TO
COMMUNICATION?
......................................................................................................................................
WHAT TYPE OF TRAINING DO THE OPERATORS RECEIVE? (RADIO PROCEDURES/IN-SERVICE?)

......................................................................................................................................
......................................................................................................................................

DO YOU HAVE DIRECT DIALLING WITH OTHER ORGANISATIONS? (MAGNETO LINE)
......................................................................................................................................

WHEN AN ACCIDENT IS REPORTED ARE THERE STANDARD QUESTIONS THAT ARE ASKED/FORMS FILLED IN?
......................................................................................................................................
......................................................................................................................................
......................................................................................................................................
......................................................................................................................................
......................................................................................................................................

(GET COPY OR DETAILS)

HOW ARE THE DETAILS RECORDED?

I) HANDWRITTEN (FORMAL) .........................................................................................
II) COMPUTER ............................................................................................................
III) INFORMAL NOTES ................................................................................................

WHAT IS THE STANDARD PROCEDURE FOR DEALING WITH INCIDENT CALLS? (FROM MEMBER OF PUBLIC VS FROM ANOTHER ORGANISATION VS PATROL VEHICLE)
......................................................................................................................................
......................................................................................................................................
......................................................................................................................................
......................................................................................................................................
......................................................................................................................................
......................................................................................................................................

IF AT ALL, HOW COULD THE PRESENT RESPONSE PROCEDURES BE IMPROVED?
......................................................................................................................................

DOES EVERY OFFICER HAVE A HAND-HELD RADIO?
......................................................................................................................................
SECTION 4: ON SCENE CO-ORDINATION DETAILS

ON-SCENE ACTION

DO YOU HAVE A PROCEDURE MANUAL OUTLINING WHAT IS TO BE DONE WHEN IN ATTENDANCE AT AN INCIDENT? (MANAGEMENT ASPECTS PARTICULARLY)

........................................................................................................................................
........................................................................................................................................

HOW ARE DECISIONS MADE AT THE SCENE? (I.E. COMMUNICATION BETWEEN SERVICES)

........................................................................................................................................

AT AN INCIDENT INVOLVING MANY SERVICES, HOW IS THE ISSUE OF “WHO IS IN CHARGE” DEALT WITH?

........................................................................................................................................
........................................................................................................................................

DO YOUR STAFF LIAISE FREELY WITH OTHER SERVICES ON SCENE?

........................................................................................................................................

WOULD ONE OF YOUR OFFICER ON SCENE CALL OUT ANOTHER SERVICE NOT UNDER THEIR “CONTROL” E.G. BREAKDOWN ENVIRONMENTAL AGENCIES?

........................................................................................................................................
........................................................................................................................................

ARE THERE ANY RECURRING PROBLEMS ON-SCENE?

........................................................................................................................................
........................................................................................................................................

SECTION 5: DEBRIEFINGS

DEBRIEFINGS

ARE DEBRIEFINGS OF INCIDENTS HELD?

........................................................................................................................................

I) AFTER WHAT TYPE OF INCIDENT?

........................................................................................................................................

II) WITHIN THE ORGANISATION?
III) INTER-SERVICE?

DO YOUR THINK MULTI DISCIPLINARY DEBRIEFINGS ARE IMPORTANT?

SECTION 6: EQUIPMENT

EQUIPMENT

WHAT EQUIPMENT, THAT COULD BE USED TO SECURE THE SCENE OF AN INCIDENT, DO YOUR VEHICLES CARRY?

DO YOU THINK THIS EQUIPMENT IS ADEQUATE?

IS YOUR ORGANISATION AWARE OF EMERGENCY EQUIPMENT THAT MIGHT BE AVAILABLE WITHIN OTHER EMERGENCY ORGANISATIONS?

WHAT HAPPENS AFTER HOURS IN TERMS OF OBTAINING EQUIPMENT?

DO YOU HAVE A CONTRACTUAL AGREEMENT WHERE EQUIPMENT AND MATERIAL ARE ACQUIRED FROM ANOTHER ORGANISATION? (E.G. SAND, CRANE)
(A) AREA OF JURISDICTION

1. SHOULD THE AREA OF JURISDICTION OF DIFFERENT EMERGENCY ORGANISATIONS BE CLEAR TO ALL OTHER ORGANISATIONS?

2. SHOULD AN ORGANISATION’S AREA OF JURISDICTION OVERLAP WITH THAT OF ANOTHER ORGANISATION OFFERING THE SAME SERVICE?

3. SHOULD AN EMERGENCY ORGANISATION BE ABLE TO RESPOND TO AN INCIDENT OUTSIDE ITS AREA OF JURISDICTION?

4. SHOULD AN ORGANISATION’S FUNCTION/RESPONSIBILITY BE CLEAR TO ALL OTHER ORGANISATIONS?

5. SHOULD AN ORGANISATION’S FUNCTION/RESPONSIBILITY OVERLAP WITH THAT OF ANOTHER ORGANISATION?
1. SHOULD THERE BE ONE RECOGNISABLE PLACE AT THE SCENE OF AN INCIDENT WHERE PEOPLE REPORT TO I.E. A FORWARD CONTROL POINT (FCP)?

........................................................................................................................................

IF YES:

- WHEN SHOULD A FCP BE SET-UP?

........................................................................................................................................

- WHO SHOULD BE INVOLVED IN THE FCP?

........................................................................................................................................

- WHAT SHOULD BE INVOLVED IN THE FCP?

........................................................................................................................................

- WHERE SHOULD THIS FCP BE LOCATED?

........................................................................................................................................

- HOW SHOULD THE FCP BE IDENTIFIED?

........................................................................................................................................

- SHOULD A RECORD OF THE INCIDENT BE KEPT AT THE FCP?

........................................................................................................................................

- SHOULD A REPRESENTATIVE OF EACH EMERGENCY ORGANISATION REPORT TO THE FCP ON ARRIVAL AT THE SCENE?

........................................................................................................................................

2. SHOULD A TEAM WORK APPROACH BE USED, I.E. JOINT DECISIONS MADE ON SCENE?

........................................................................................................................................

3. IF A TEAM APPROACH IS TAKEN, SHOULD ONE PERSON BE ELECTED TO CO-ORDINATE THE DECISIONS BUT HAVE NO CONTROL OVER ANOTHER SERVICES LINE FUNCTION?

........................................................................................................................................
1. HOW CAN DUPLICATION OF CALL-OUT BE PREVENTED?

2. IS A COMPREHENSIVE RECORD OF AN INCIDENT KEPT ON SCENE, E.G. RADIO REQUESTS FOR ADDITIONAL EQUIPMENT?

3. WOULD IT BE MORE EFFICIENT TO HAVE INCIDENTS DEALT WITH BY A CENTRALISED COMMUNICATION CENTRE (CCC)?

4. WHAT SHOULD THE ROLE OF THE CCC BE?

5. SHOULD THERE BE A STANDARD INCIDENT REPORT FORM (CHECKLIST) TO AID THE OPERATOR TO IDENTIFY THE NATURE AND SCOPE OF AN INCIDENT?

IF YES:

- SHOULD THIS FORM BE KEPT AS A RECORD OF THE INCIDENT?

6. SHOULD THE OPERATOR ASSIST THE EMERGENCY SERVICES ON SCENE BY PROMPTING THEM, E.G. NOTIFICATION OF THE MEDIA, CHEMICAL CLEAN UP COMPANIES, ETC?

7. WHO SHOULD THE OPERATOR LIAISE WITH ON SCENE?
1. Who should secure the scene of an incident?

2. With whom should the responsibility to close or partially close the road to traffic rest?

3. With whom should the responsibility to re-direct traffic onto an alternative route rest?

4. Should alternative routes be pre-planned and documented, stating manpower and equipment requirements?
(E) MONITORING / DEBRIEFINGS

1. Should the incident management system be monitored?

..............................................................................................................................

If yes:

- What would the benefits of monitoring be?
..............................................................................................................................

2. Should a multi-disciplinary debriefing be held after certain incidents?

..............................................................................................................................

If yes:

- When/What type of incident?
..............................................................................................................................

- What should the purpose of a debriefing be?
..............................................................................................................................

- Which staff members should attend them?
..............................................................................................................................
1. Should a module on incident management be incorporated into all emergency services training programmes?

2. Should basic emergency equipment for use be located at secure points in close proximity to e.g. toll plaza’s, cages at strategic points?

3. Should emergency personnel be aware of additional equipment that is available within other emergency organisations?

4. Who should be responsible for the collection of evidence at the scene of an incident involving injury or death?

5. Is there a problem with the need to open the road as quickly as possible versus the need to collect accurate evidence?

6. Who should be responsible to ensure that the road is cleared of debris after an incident.
Annexure D

Example of response protocol table
# N3 RESPONSE PROTOCOLS
## INTERCHANGE TO INTERCHANGE

<table>
<thead>
<tr>
<th></th>
<th>SUMMERVELD TO KEY RIDGE</th>
<th>KEY RIDGE TO CLIFFDALE</th>
<th>CLIFFDALE TO HAMMARSDALE</th>
<th>HAMMARSDALE TO CATO RIDGE</th>
<th>CATO RIDGE TO CAMPERDOWN</th>
<th>CAMPERDOWN TO SOUTH COAST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RESCUE</strong></td>
<td>P Gillitts Fire</td>
<td>P Gillitts Fire</td>
<td>P Gillitts Fire</td>
<td>P Gillitts Fire</td>
<td>P AEMS Midlans Fire</td>
<td>P Midlands Fire</td>
</tr>
<tr>
<td></td>
<td>B AEMS</td>
<td>B AEMS</td>
<td>B AEMS</td>
<td>B AEMS</td>
<td>B AEMS</td>
<td>B AEMS</td>
</tr>
<tr>
<td><strong>FIRE</strong></td>
<td>P Gillitts Fire</td>
<td>P Gillitts Fire</td>
<td>P Gillitts Fire</td>
<td>P Gillitts Fire</td>
<td>P Midlans Fire</td>
<td>P Midlands Fire</td>
</tr>
<tr>
<td></td>
<td>B Pinetown Fire</td>
<td>B Pinetown Fire</td>
<td>B Pinetown Fire</td>
<td>B Pinetown Fire</td>
<td>B Midlans Fire</td>
<td>B PMB Fire</td>
</tr>
<tr>
<td><strong>HAZMAT</strong></td>
<td>P Gillitts Fire</td>
<td>P Gillitts Fire</td>
<td>P Gillitts Fire</td>
<td>P Gillitts Fire</td>
<td>P Midlans Fire</td>
<td>P Midlands Fire</td>
</tr>
<tr>
<td></td>
<td>B Durban Fire</td>
<td>B Durban Fire</td>
<td>B Durban Fire</td>
<td>B Durban Fire</td>
<td>B PMB Fire</td>
<td>B PMB Fire</td>
</tr>
<tr>
<td><strong>TRAFFIC</strong></td>
<td>P RTI Pinetown</td>
<td>P RTI Pinetown</td>
<td>P RTI PMB</td>
<td>P RTI PMB</td>
<td>P RTI PMB</td>
<td>P RTI PMB</td>
</tr>
<tr>
<td></td>
<td>B RTI PMB</td>
<td>B Outer West</td>
<td>B RTI Pinetown</td>
<td>B RTI Pinetown</td>
<td>B Outer West</td>
<td>B Outer West</td>
</tr>
<tr>
<td><strong>SAPS</strong></td>
<td>P 10111</td>
<td>P 10111</td>
<td>P 10111</td>
<td>P 10111</td>
<td>P 10111</td>
<td>P 10111</td>
</tr>
<tr>
<td></td>
<td>B Hammarsdale</td>
<td>B Hammarsdale</td>
<td>B Hammarsdale</td>
<td>B Hammarsdale</td>
<td>B Camperdown</td>
<td>B Camperdown</td>
</tr>
<tr>
<td><strong>AMB</strong></td>
<td>P AEMS</td>
<td>P AEMS</td>
<td>P AEMS</td>
<td>P AEMS</td>
<td>P AEMS</td>
<td>P AEMS</td>
</tr>
<tr>
<td><strong>ALT ROUTE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10111</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CLEAN-UP</strong></td>
<td>KZNDOT - DBN</td>
<td>KZNDOT - DBN</td>
<td>KZNDOT - DBN</td>
<td>KZNDOT - DBN</td>
<td>KZNDOT - PMB</td>
<td>KZNDOT - PMB</td>
</tr>
</tbody>
</table>
Management Team, Co-ordinator and Forward Control point Guidelines and Roles
WHAT IS A MANAGEMENT TEAM?

* A group of people made up of one representative of each primary emergency service on scene

* It evolves throughout the incident and may begin with junior representatives of each service

WHY IS A MANAGEMENT TEAM SET UP?

* To develop a plan of action for the incident

* To co-ordinate decisions and actions on scene

* To encourage services to work as a team and make joint decisions

WHERE WILL YOU FIND THE MANAGEMENT TEAM?

* The management Team meets at the FCP
* * It does not need to remain at the FCP throughout the incident
WHO IS THE CO-ORDINATOR?

* The person elected by the Management Team.
* The Co-ordinator is not necessarily the first person on scene.
* The role of Co-ordinator may get passed on as the incident evolves.

WHAT DOES THE CO-ORDINATOR DO?

* Co-ordinates decisions made by the Management Team.
* Liaise with the Centralised Communication Centre.

IS THE CO-ORDINATOR IN CHARGE?

* No!
FORWARD CONTROL POINT

WHAT IS A FORWARD CONTROL POINT?

* The Place where all personnel arriving on scene report to.
* The place at which the Management Team meets.

HOW DO YOU SET UP A FORWARD CONTROL POINT?

* Put a cone or green light on your vehicle, which should preferably have direct communication with the Centralised Communication Centre.
* Park your vehicle outside the immediate operational area of the incident.

WHY DO YOU SET UP A FORWARD CONTROL POINT?

* It allows everyone arriving on scene to identify where they should go to find out more information about the incident and what decisions have been made.
Example of Alternative Route Plan
Annexure G

Example of IMS Detailed Procedures and Protocols Document
DETAILED PROCEDURES AND PROTOCOLS

DETECTION AND MOBILISATION

1. When a call for an incident on the N3 is received by the Centralised Communication Centre 1, Incident Management procedures and protocols will be implemented immediately and an incident report form will be opened.

2. When a call is received by another emergency service, it will simultaneously mobilize its own personnel and notify the Centralised Communication Centre who will then notify the relevant primary emergency services. The emergency service receiving the call will not notify other emergency services.

3. If an incident is detected by a patrol vehicle, the officer will directly notify the Centralised Communication Centre, if possible, or he will notify his control center who will immediately hand the incident over to the Centralised Communication Centre who will in turn notify the necessary primary services.

4. The Centralised Communication Centre will at all times adhere to the response protocols agreed upon jointly by the respective participating emergency services and will be responsible for notifying the appropriate emergency services.

5. The Centralised Communication Centre will notify the relevant back-up responding services of the incident only at the request of the incident Co-ordinator on scene.
**ASSESSMENT**

6. On arrival at the scene of the incident, the first responder will:
   - Verify the incident with the Centralised Communication Centre
   - Assess the scope of the incident
   - Secure the scene of the incident from a traffic point of view
   - Consult the Freeway Incident Management Guideline Plan
   - Request further assistance from other disciplines required on the scene via the Centralised Communication Centre
   - Establish a safe zone on scene
   - Set up a Forward Control Point by placing a cone/green light on the roof of his vehicle.

**MANAGEMENT**

**FORWARD CONTROL POINT**

7. A forward Control Point will be established at every incident where more than one emergency services is present.

8. This Forward Control Point will be made clearly visible to all emergency services arriving at the incident by placing a cone or green light on top of the vehicle that is acting as the co-ordination point.

9. The vehicle acting as the co-ordination point must be able to communicate directly with the Centralised Communication Centre. In the event that no direct communication with the Centralised Communication Centre can be obtained, the Forward Control Point must be communicate with the Centralised Communication Centre via the control center of the one of the emergency services involved on scene.

10. Where possible, the Forward Control Point will be located in a safe place which has a view of the incident and is easily accessible, but which is on the fingers of the operational area.

11. One representative of each emergency service that arrives at the scene of the Incident will report briefly to the Forward Control Point before proceeding into the operational area to perform their specific tasks.

**MANAGEMENT TEAM**

12. A Management Team will be set up at the Forward Control Point. This team will consist of the most senior representatives from each of the emergency services represented at the scene of the incident, although it may begin with a more junior member initially. These representatives do not spend the entire duration of the incident at the Forward Control Point. They continue with their respective tasks and when a decision needs to be made they meet at the Forward Control Pant to discuss it.
13. The Management Team will be responsible for co-ordinating the scene of the incident and will ensure that consensus-based decisions are carried out by all responding emergency services.

14. The Management Team will develop a plan of action for the management of the incident. This plan of action should be adhered to by all services at the incident. New services arriving at the incident should contribute the decision-making process already in place rather than override decisions already made by the Management Team.

15. The Management Team’s decision-making will not supersede the line responsibility of each responding emergency service in attendance at the scene.

CO-ORDINATOR

16. One person from within the Management Team will be elected as the Co-ordinator of the incident. It is likely that the Co-ordinator will be a representative of the service which is most affected by the incident at the time.

17. The Co-ordinator will co-ordinate all the decisions made by the Management Team and will regularly report back to the Centralised Communication Centre. No communication/instruction from another service to the Centralised Communication Centre will be accepted by the Dispatcher. Should the Co-ordinator leave the scene, another member of the Management Team will be elected as Co-ordinator and the Centralised Communication Centre will be updated accordingly.

18. All request for assistance at the scene other than from within a service’s own discipline will be made by the Co-ordinator to the Centralised Communication Centre only and not by another emergency service to its control center.

19. No emergency service is to call out a contract service/secondary responder unless it is from within their own discipline. If a service on scene calls out another service from within their own discipline the Centralised Communication Centre must be updated of this via the Co-ordinator on scene.

20. As far as possible the Co-ordinator will ensure that records are kept of decisions made and activities on scene. This record should be continuous and ongoing, regardless of the fact that the Co-ordinator might change.

21. Should the nature and size of the incident warrant it, the Co-ordinator may nominate a dedicated radio operator/record keeper whose sole purpose is to maintain communication between the scene and the Centralised Communication Centre and makes notes of the incident. This record keeper is not the Co-ordinator.

22. The Co-ordinator will notify the Centralised Communication Centre of the arrival and departure of all services.

23. The Co-ordinator will notify the Centralised Communication Centre when the incident is stood down; i.e. when the incident is over.

24. Should the Co-ordinator leave the scene/stand down, he will hand the incident over to a new Co-ordinator and notify the Centralised Communication Centre of this change.
25. If possible, the Co-ordinator should not be directly involved in actively attending to the incident (although it is accepted that at many incidents this may not be possible).

26. The Co-ordinator shall be responsible for the authorization of the removal of vehicle after discussion with the Management Team. No one else shall authorize the removal of vehicles.

CENTRALISED COMMUNICATION CENTER

27. A detailed Incident Report Form will be completed by the Centralised Communication Centre staff as the incident unfolds. Information not forthcoming from the scene must be requested from the Co-ordinator. The completed Incident as possible.

28. The Centralised Communication Centre staff should prompt the Forward Control Point at the scene, should they notice that something may have been overlooked or if regular updates are not forthcoming from the scene.

29. The Centralised Communication Centre staff will liaise only with the Co-ordinator of the Forward Control Point at the incident and will not take instruction from any other service/individual on scene.

DEBRIEFINGS

30. The Co-ordinator of the Forward Control Point or any other service on scene may call for a debriefing. A debriefing should be considered after any of the following types of incident:

- An incident involving hazardous chemicals,
- An incident involving road closure, or use of an alternative route for a substantial length of time,
- An incident where the Co-ordinator/any other service feels that the incident was not handled adequately,
- An incident where the Co-ordinator/ any other service feels that the incident was well handled and would provide a positive learning experience.

The Study Team can either be contacted directly, or the Co-ordinator/any other service on scene can update the Centralised Communication Centre to indicate the request for a debriefing on the Incident Report Forum.

31. Debriefings will be multi-disciplinary. All services will be invited to attend debriefings irrespective of whether they were on scene. The role of those who were not on scene will be restricted to that of an observer.

32. Debriefings will be a positive learning exercise and no “finger-pointing” will be allowed.
TRAINING AND EQUIPMENT

33. The training officer of every emergency service involved in the incident Management System will be trained in the meaning and application of Incident Management.

34. An Incident Management System training module will be incorporated into every emergency organizations training programme. It is the responsibility of every service to ensure that their personnel are fully versed in the Incident Management System protocols and that all new personnel are promptly trained. An Incident Management System training manual will be provided to assist with this task.

GENERAL PROTOCOLS

35. Every service present at the scene of an incident will be responsible for performing the duties of its particular discipline. There will, as far as possible, be no overlapping of responsibility at the scene of an incident.

36. The KZN Road Traffic Inspectorate will be responsible for initiating the use of an alternative route. Any decision made will be sanctioned by the Management Team at the Forward Control Point and will be communicated to the Centralised Communication Centre. The KZN Road Traffic Inspectorate will close the roadway and redirect traffic onto the alternative route.

37. The South African Police Services will be responsible for collecting evidence at the scene of an incident. Assistance may be provided by Traffic Officers on scene.

38. All senior personnel of various emergency services will ensure that their personnel are aware of the meaning of the emergency number 10177. They will ensure that their staff are in a position to advise public as to the meaning this sign on request.
Example of Incident Report Form
Example of Fact Sheet