



Impact Assessments

**Director's Guideline for Civil Defence Emergency
Management Groups [DGL 22/20]**



**Resilient New Zealand
Aotearoa Manahau**

New Zealand Government

Impact Assessments

Director's Guideline [DGL 22/20]

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Authority

This Director's Guideline has been issued by the Director Civil Defence & Emergency Management pursuant to s9(3) of the Civil Defence Emergency Management (CDEM) Act 2002. It provides assistance to CDEM Groups in the development of a standard, consistent, and robust approach to impact assessments.

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Foreword

Over the last 10 years New Zealand has experienced a number of wide ranging emergencies which has produced consequences detrimental to our communities and/or the built environment.



In advance of an emergency, collective multi-agency pre-planning of reconnaissance and assessment activities, as well as how information is shared, ensures resources are deployed effectively and facilitates coordination. Coordination of effort saves lives, improves the effectiveness of the response, and minimises the likelihood of adverse consequences for the affected community resulting from information gaps, duplication and 'assessment fatigue'.

This Guideline is intended to enable a multi-agency coordinated approach to reconnaissance, damage assessments and predefined ways of sharing that information, as the basis for efficient and comprehensive damage assessment in the event of any type of emergency.

The intended audience of this document is CDEM Groups, emergency services, non-government organisations, and agencies with responsibilities for emergency management.

A handwritten signature in black ink, appearing to read 'Sarah Stuart-Black'.

Sarah Stuart-Black

Director of Civil Defence Emergency Management

Contents

Section 1 Introduction	3
1.1 About this guideline	3
1.2 Review of the Impact Assessment DGL & National Impact Assessment Data Set and Dictionary Technical Standard.....	4
1.3 Key terms.....	4
Section 2 Overview of impact assessments.....	8
2.1 The impact assessment process	9
2.2 Agencies involved	11
Section 3 Impact assessment phases	14
3.1 Phase 1: Wide area impact assessment.....	14
3.2 Phase 2: Rapid impact assessment	14
3.2.1 CDEM Groups	15
3.2.2 Fire and Emergency New Zealand	15
3.2.3 Rapid building assessments	16
3.3 Phase 3: Specialist detailed assessment.....	17
3.3.1 Welfare registration and needs assessment	18
3.3.2 Lifeline utilities assessments	21
3.3.3 Building assessments: Detailed Damage Evaluation (DDE)	22
Section 4 Impact assessment planning and implementation.....	23
4.1 Considerations of an impact assessment plan.....	23
4.2 Outline requirements of an impact assessment plan	23
4.3 Implementation of an impact assessment plan.....	27
4.3.1 Authority.....	28
4.3.2 Integration of Impact Assessment Planning into Action Planning.....	29
4.3.3 Prioritisation of survey areas & resourcing.....	31
4.3.4 Data collection, intelligence analysis and dissemination	31
Section 5 National Impact Assessments Data Set and Dictionary.....	38
5.1 Purpose.....	38
5.2 Objectives	38
5.3 Audience and intended use	38
Annex 1 References	40

Section 1 Introduction

This section introduces this Guideline and includes the conceptual and contextual information about impact assessments, as well as a list of key terms used throughout the guideline.

1.1 About this Guideline

Purpose

The purpose of this Guideline is to provide an overview of the concept of impact assessments in a CDEM context. It describes:

- how impact assessment informs readiness and response planning as an input to intelligence collection and response and recovery planning processes;
- the impact assessment process across three phases, both during and following an emergency;
- the roles and responsibilities of CDEM Groups, emergency services, other government agencies, and response organisations and agencies for conducting these assessments; and
- impact assessment planning, including underpinning principles, plan requirements, and strategic implementation guidance.

It is anticipated that agencies will develop their own doctrine based on this Guideline, outlining detailed planning and implementation for their specific assessments.

Desired outcome

This Guideline is intended to encourage a consistent and robust approach to planning and conducting impact assessments before, during, and after an emergency. This will ensure that:

- there is a multi-agency understanding of conducting coordinated impact assessments,
- response agencies are able to operate collaboratively to enhance the effectiveness of the initial response, and
- impact assessments generate shared situational awareness as part of supporting the development of a response common operating picture.

Target audience

The target audience of this document is CDEM Groups, national and local emergency services, non-government organisations, and agencies with responsibilities for emergency management.

National Impact Assessments Data Set and Dictionary

The *National Impact Assessments Data Set and Dictionary Technical Standard [TS 05/20]* is an essential companion to this Guideline.

The *National Impact Assessments Data Set and Dictionary [TS 05/20]* is a minimum set of data fields agreed for collection and reporting by agencies and emergency services personnel.

It provides a common language for the various central/local government agencies, non-government organisations and emergency services involved



in impact assessments. It has been designed to improve the comparability of data across these organisations nationally and to facilitate shared situational awareness through harmonised data capture. The *National Impact Assessments Data Set and Dictionary [TS 05/20]* is available alongside this Guideline on the National Emergency Management Agency (NEMA) website, www.civildefence.govt.nz.

Structure

This Guideline has the following main sections.

- [Section 1 Introduction](#)
- [Section 2 Overview of Impact Assessments](#)
- [Section 3 Impact Assessment Phases](#)
- [Section 4 Impact Assessment Planning](#)
- [Section 5 National Impact Assessment Data Set and Dictionary](#)
- [Appendix 1 References](#)

Use of icons

The following icons are used in this Guideline.



Indicates a template is provided in the appendices



Indicates more information is available in another document or website

1.2 Review of the Impact Assessment DGL and National Impact Assessment Data Set and Dictionary Technical Standard

Impact Assessment DGL

This Director's Guideline will be reviewed by NEMA every three years, alongside the *National Impact Assessments Data Set and Dictionary [TS 05/20]*.

National Impact Assessments Data Set and Dictionary [TS 05/20] review

The technical standard will be reviewed as necessary. Formal approval for changes will be sought from the NEMA Senior Leadership Team.

Urgent corrections may be advised to NEMA at any time and will be published in a draft form until formal approval has been granted.

1.3 Key terms

This section provides clarification for some of the key terms used in this Guideline. These definitions have been aligned with the National Civil Defence Emergency Management Plan 2015 and the [New Zealand Coordinated Incident Management System \(CIMS\) 3rd edition](#).

4Rs

The 4Rs refers to the components of emergency management – risk reduction, readiness, response and recovery.

Asset

In this document, 'asset' refers to vertical and horizontal infrastructure that supports and provides essential services to individuals/communities that may be affected by an emergency. Assets include, but are not limited to:

- buildings and properties (residential, community or commercial),

- transport infrastructure (roads, rail, bridges, sea ports and airports), and
- other lifeline utilities (power, fuel, water, telecommunications, and sewerage and wastewater).

CDEM Group Means a Civil Defence Emergency Management Group established under section 12 of the Civil Defence Emergency Management (CDEM) Act 2002.

CIMS Coordinated Incident Management System (CIMS) is the primary reference for incident management in New Zealand. The purpose of CIMS is to achieve effective coordinated incident management across responding agencies for all emergencies regardless of size, hazard or complexity.

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Doctrine Doctrine is the body of principles and practices that guide an agency's actions in support of their objectives. It is authoritative but requires judgement in application.

ECC & EOC During and following an emergency, the:

- Emergency Coordination Centre (ECC) is a Coordination Centre that operates at the CDEM Group or regional level to coordinate and support one or more activated EOCs.
- Emergency Operations Centre (EOC) is a Coordination Centre that operates at the local level to manage a response.

Emergency In this document 'emergency' has the same meaning as in the CDEM Act 2002:

Extract from the CDEM Act 2002

emergency means a situation that –

- (a) is the result of any happening, whether natural or otherwise, including, without limitation, any explosion, earthquake, eruption, tsunami, land movement, flood, storm, tornado, cyclone, serious fire, leakage or spillage of any dangerous gas or substance, technological failure, infestation, plague, epidemic, failure of or disruption to an emergency service or a lifeline utility, or actual or imminent attack or warlike act; and
- (b) causes or may cause loss of life or injury or illness or distress or in any way endangers the safety of the public or property in New Zealand or any part of New Zealand; and
- (c) cannot be dealt with by emergency services, or otherwise requires a significant and co-ordinated response under this Act.

Forms

Forms describe all standardised electronic and paper-based data entry templates used for impact assessment data capture as per this Guideline.

Geospatial

Geospatial is a collective term for data and technology with a spatial component (geographic or locational). Geospatial technology refers to all of the technology used to acquire, manipulate and store geographic information. These are a subset of technologies used for information management.

Geospatial enhances data management and analysis capability and this is where the value lies for emergency management, particularly in larger emergencies handling diverse forms and large volumes of data. Geospatial products can include tables, graphs, infographics, paper maps and web maps.

GIS is one form of geospatial technology and GIS data is a type of geospatial data. Geospatial data can originate from other sources, such as Global Position System (GPS) data and satellite imagery.

GIS

Geographic Information Systems (GIS) are systems designed to capture, store, manipulate, analyse, manage, and present all levels of geographical data.

GIS can merge a vast range of data (including imagery, topography, property boundaries, and population data) to produce a range of outputs that show relationships, patterns and trends.

Information management

Information management encompasses policy, processes, practices and technology underpinning creation and use of information.

NCC

A national level Coordination Centre that coordinates a national response and provides support to regional level response activities.

NCMC

The National Crisis Management Centre (NCMC) is a secure, all-of-government coordination centre used by agencies to monitor, support or

manage a response at the national level. It can also be used as a National Coordination Centre.

Rapid building assessments

Rapid building assessments are a brief evaluation of individual buildings and their immediate surrounds for impact, usability and hazards exposure. The goal is to assess immediate risk to public safety. Rapid building assessments are carried out by territorial authorities in conjunction with relevant CDEM officials and MBIE, with engineering input.

Schema

Schema is the data specification that describes the structure, standards, relationships and elements in a database, including tables, fields and attributes.

Shared situational awareness

Situational awareness is an understanding and appreciation of the complexities of an incident, including an understanding of the environment, the situation, likely developments, and implications. Shared situational awareness is achieved when the right level of intelligence is shared by and between all involved in an emergency to enable informed decision-making and consolidated planning.

SOP

Written practices adopted by an agency. Standard operating procedures describe how actions or functions are performed.

USAR

Urban Search and Rescue (USAR) is a function of Fire and Emergency New Zealand and involves finding and rescuing people trapped in a structural collapse or other situation outside the capabilities of a normal response.

Section 2 Overview of Impact Assessments

This section provides a description of the impact assessment methodology, including an outline of each of the phases of the impact assessment process, how these are sequenced in an event (including how they can be iterative), and agency roles and responsibilities in each phase.

Objectives

Response involves the decisions and actions taken immediately before, during and directly after an emergency to save lives and property, and to help communities recover.

Intelligence gathered via impact assessments provides a situational overview of the emergency, which assists to inform these operational response and recovery decisions and actions.

The objectives of impact assessments are to support initial understanding and the Hazard and Environmental Assessment (HEA) inputs to response planning by:

- gathering information (via an established process, agreed prior to an emergency, for collection, collation, analysis and reporting) on impacts to assist in response and recovery decision-making and activities;
- planning and setting areas required for priority of effort and focus of assessment;
- rapidly determining the impact of the emergency and identifying areas for more specialist detailed assessment; and
- providing information, for shared situational awareness about the impact of the emergency, to responding agencies, emergency services, local and national government, and, where appropriate, media and the public.

Benefits

When properly conducted and coordinated, impact assessments allow responding agencies to quickly take stock of the situation, and prioritise and distribute resources appropriately. Where applicable, this may happen directly under agency responsibilities before transitioning to prioritisation and coordination under the mandate of a Civil Defence Emergency Management (CDEM) Controller.

Impact assessments are a vital intelligence component that inform response planning objectives and options, and the subsequent implementation of immediate response activities, as well as early recovery planning.

Benefits to response agencies, and ultimately the community, include:

- fewer gaps and duplications in assessment coverage;
- more efficient and coordinated use of resources, enabling agencies to cover more ground;
- reduced assessment fatigue in emergency impacted communities; and
- more effective combined analysis and reporting.



To achieve coordinated impact assessments, agencies will need to be using the same data definitions and standards. See *The National Impact Assessments Data Set and Dictionary Technical Standard [TS 05/20]*.

2.1 The impact assessment process

This document addresses three phases of the impact assessment process that integrate into established CDEM planning processes.

- **Phase 1: Wide area impact assessment** involves a rapid survey of the impacted area that is generally conducted within eight hours (by either aerial or ground/water reconnaissance, or a combination of these). This phase, and the general level of detail obtained, aligns to supporting the Preliminary Scoping stage of response planning and the Initial Understanding step of the CIMS “Planning P”.
- **Phase 2: Rapid impact assessment** involves a more detailed street-by-street assessment, and is usually undertaken within the first 48 hours. This phase, and the improved level of detail obtained, will support the development and release of the first Action Plan, with ongoing improvement in detail contributing to the development of subsequent Action Plans.
- **Phase 3: Specialist detailed assessment** involves the specialist operations undertaken by a range of agencies, and is generally conducted after the first 48 hours and is likely to continue into recovery. This phase is likely to form an ongoing component of response Action Plans as response planning transitions into recovery planning.

Figure 1 shows the phases of the impact assessment process, from pre-emergency planning and readiness activities, through to transitioning into recovery.

Each phase should build on the information collected, collated and analysed from the previous phase. This will build a robust shared situational awareness of the social, economic, built, and natural environments that informs operational decision-making and action.

Phases tend to occur sequentially; however, it is possible for phases to be conducted simultaneously, or initiated independently, depending on the event and the different consequences across lifelines and welfare aspects.

These phases could also be iterative, depending on cascading and consequential impacts.

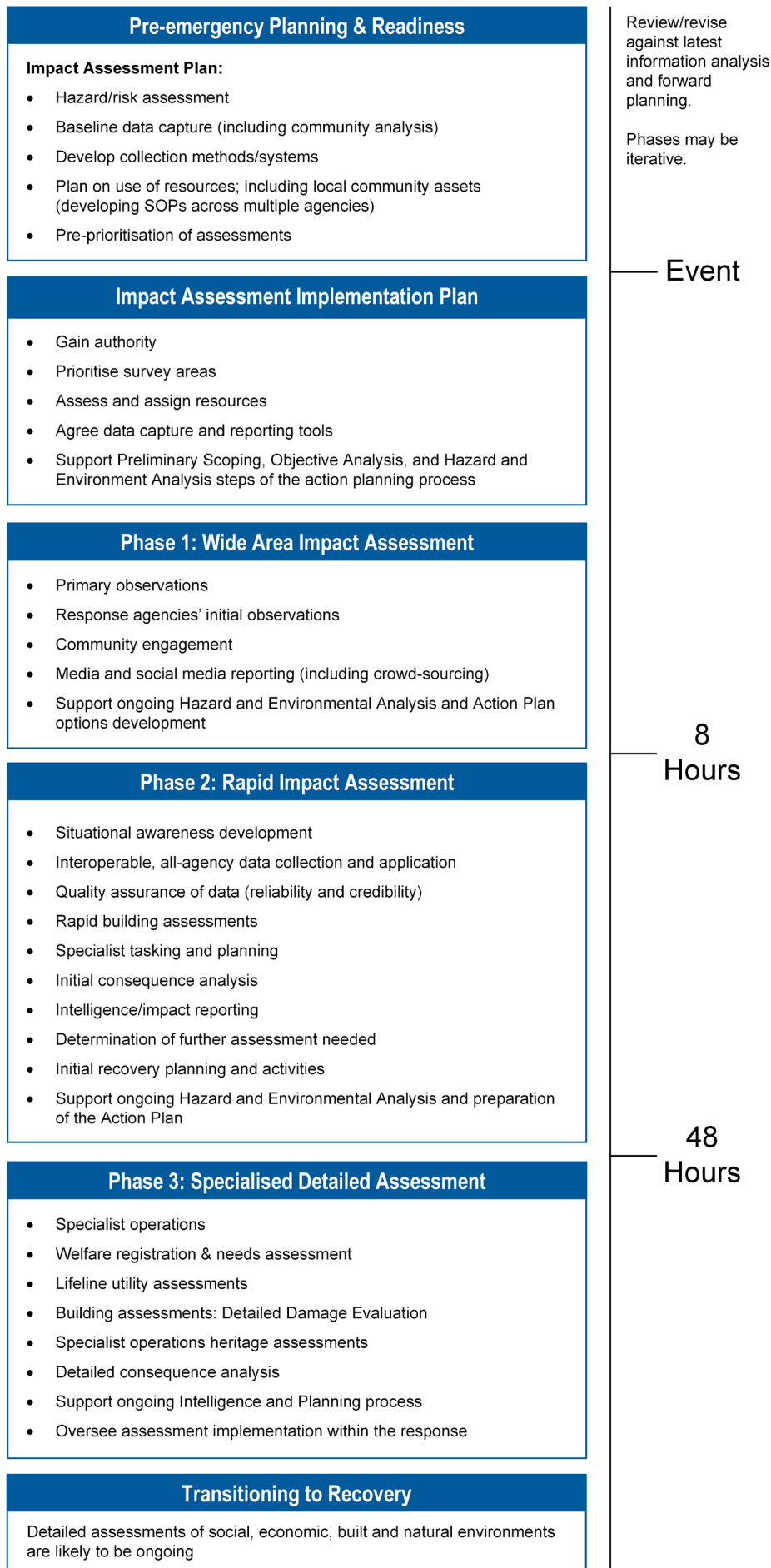


Figure 1 Impact assessment phases

2.2 Agencies involved

There are likely to be a number of agencies engaged in conducting impact assessments across the three phases (particularly in Phase 3).

Certain agencies have clearly defined responsibilities under existing legislation. Others will have well-developed roles and responsibilities under existing arrangements.

It is critical to ensure that all agencies have a clear understanding of their own, and others', responsibilities during the impact assessment process, to avoid duplication and inefficiency in collecting and collating data.

Table 1 sets out the agencies with legislative responsibilities or roles and responsibilities for impact assessments as defined under the National CDEM Plan Order 2015.

Table 1 Agencies involved in the impact assessment process

	Name of assessment	Carried out by	Description of assessment
Phase 1 Wide area impact assessment	Wide area impact assessment	<ul style="list-style-type: none"> Local authority New Zealand Defence Force Fire and Emergency NZ (including New Zealand USAR) Other response agencies, Science/research agencies Community/volunteers Media Lifeline utilities 	Initial information on the impact of the emergency on infrastructure and roading, gathered rapidly from ground, air or water.
Phase 2 Rapid impact assessment	Rapid impact assessment	<p>Fire and Emergency New Zealand USAR personnel assisted by local authority personnel (may include suitably trained volunteers) in conjunction with other emergency services, response organisations and agencies.</p> <p>Under control of local EOC or CDEM Group ECC.</p>	<p>Information about initial impact of emergency, typically involving street-by-street assessments, but also gathered from air and/or water as necessary.</p> <p>When deployed, the USAR function is based on the International Search and Rescue Advisory Group (INSARAG) guidelines. This involves wide area [impact] assessment (as above under Phase 1), and sector assessment and triage under Phase 2.</p>
	Rapid building assessments	<p>Led by affected Territorial Authority Building Control, actively supported by the Ministry of Business, Innovation and Employment (MBIE).</p> <p>Field work and additional operations centre resources by</p>	<p>Rapid building assessments are an evaluation of individual buildings and their immediate surrounds for impact, usability and hazards exposure.</p> <p>Rapid building assessors issue placards and complete</p>

	Name of assessment	Carried out by	Description of assessment
		<p>personnel on the MBIE register of trained rapid building assessors.</p> <p>May include:</p> <ul style="list-style-type: none"> • local authority personnel, • local consultants, • building officials, • chartered structural and geotechnical engineers, and • registered architects. 	<p>information forms for each building they assess.</p> <p>Initial rapid building assessments begin within hours of the event and mainly involve external building inspections. They are likely to take about 15-20 minutes per building.</p> <p>These assessments should follow on from rapid impact assessments conducted by USAR, if deployed.</p> <p>Secondary assessments involve internal and external inspections, and can take two to four hours per building. They may be completed at the same time, or following, the initial rapid building assessments.</p>
Phase 3 Specialist detailed assessment	Specialist operations	Local authority personnel and trained volunteers in conjunction with other agencies and organisations involved in response and recovery	Specialist assessment of social, economic, built and natural environments to determine the requirement for response/recovery activities and services.
	Welfare registration & needs assessment	<p>Local authority personnel and trained volunteers, in conjunction with non-government and community-based organisations and networks and agencies/organisations with responsibilities under the welfare services arrangements of the National CDEM Plan 2015.</p> <p>The coordination, collation, and analysis of identified welfare needs occurs at the EOC or ECC.</p>	<p>Collection of information from people to identify who has been directly affected by the emergency and may require welfare services.</p> <p>This is undertaken by a variety of methods including face-to-face, self-service and via outreach. Data may be collected electronically or in hard copy depending on the circumstances of the emergency.</p> <p>The desired outcome is the delivery of integrated welfare services and information that meets the needs of affected people.</p>
	Lifeline utility assessment	Lifeline utility personnel, according to their specific incident management, emergency management and/or business continuity plans.	Lifeline utilities focus on response and recovery activities as soon as a disruption is detected (and following on from Phase 1). The focus is on attaining their predetermined service levels.

	Name of assessment	Carried out by	Description of assessment
	Building Assessments: Detailed Damage Evaluation (DDE)	A Detailed Damage Evaluation is generally completed in Phase 3 and into recovery and is performed by engineers who have been contracted by building owners.	<p>A Detailed Damage Evaluation (DDE) is an in-depth engineering assessment focussed on determining the extent and nature of structural damage suffered by a building, including advice on building usability and options to address any damage.</p> <p>In some circumstances, a territorial authority (or Local Controller / Recovery Manager) may also seek a DDE from a building owner where the building is a hazard that impacts critically on recovery.</p>

Section 3 Impact assessment phases

This section provides a high-level description of the impact assessment phases, including the purpose and agency involvement for each phase.

3.1 Phase 1: Wide area impact assessment

Wide area impact assessment, or ‘initial situation overview’, is typically conducted within eight hours following an emergency. This assessment may be conducted on the ground (including a drive-by or walk-by depending on accessibility and safety), by aerial reconnaissance (including drone footage), by water or by a combination of methods.

During wide area impact assessment, personnel gather broad information on the affected population (displacement, injuries or fatalities), obvious impact to lifeline utilities and critical facilities and obvious structural impact to building and housing stock.

Purpose

The purpose of wide area impact assessment is to obtain a rapid and broad picture of the extent of the impact on the impacted area, in order to determine and prioritise initial response activities and target more detailed assessments. This prioritisation and tasking occurs through the action planning process.

Agencies involved

It is likely that a number of agencies will be involved in information collection in this phase of impact assessment, including local authorities, New Zealand Defence Force, Fire and Emergency New Zealand (including New Zealand USAR), New Zealand Police and other emergency services personnel, science agencies and response agencies.

Information gathered from community members, volunteers and the media (including news and social media, and crowdsourcing) will contribute to an initial situational overview.

Some of those contributing information may only have a superficial understanding of the nature and/or extent of the impact due to full control and coordination of the response not being fully established. As such, this information must be carefully considered and the information quality assured before using it for any operational decision-making.

All information collected during this phase needs to be fed back by all agencies into the EOC/ECC Intelligence function to inform and support the planning process for subsequent assessments. See [Section 4 Impact assessment planning](#) for more information on the requirements of an impact assessment plan (including wide area impact assessment forms) and implementation.

3.2 Phase 2: Rapid impact assessment

Rapid impact assessment typically involves a more systematic street-by-street assessment in areas where significant impact is evident, usually undertaken within the first 48 hours following an emergency.

It is a secondary collection of data, based on primary observations and analysis from the wide area impact assessment and subsequent prioritisation of survey areas (and assets).

Agencies engaged in conducting rapid impact assessments should follow the direction of the local EOC or CDEM Group ECC impact assessment plan.

Purpose

The purpose of a rapid impact assessment operation is to gather more data about the initial impact on the social, economic, natural and built environments of a community, as well as to identify assets or secondary hazards that may pose a significant life safety risk.

Information from a rapid impact assessment, once quality assured, feeds into the objective analysis step of response planning, intelligence/impact reporting, and specialist tasking and response planning (including identifying and prioritising immediate needs and response actions).

This information should also provide the basis for decision-making on whether further specialist detailed assessments are required, and provide clarity on which areas to target for assessment prioritisation.

Agencies involved

Fire and Emergency New Zealand personnel, in addition to the USAR Disaster Assistance Response Teams (DART) personnel, assisted by local authority personnel, emergency services, response organisations, and agencies are all likely to be engaged in rapid impact assessments under the control of the local EOC or CDEM Group ECC, depending on pre-event planning.

During this period, rapid building assessment personnel (sourced from the MBIE register of trained rapid building assessors) may also be conducting external assessments.

3.2.1 CDEM Groups

The authority to conduct rapid impact assessment planning falls to CDEM Groups or local authorities. During a declared emergency, all agencies engaged in conducting assessments are doing so under the mandate of the local EOC or CDEM Group ECC.

At the CDEM Group and local levels, impact assessment plans should be developed prior to an emergency, to ensure that rapid impact assessments are coordinated and collaborative, and are more effective by ensuring that information collected is appropriate in its purpose and use (see [Section 4 Impact assessment planning](#)).

3.2.2 Fire and Emergency New Zealand

Fire and Emergency New Zealand is likely to be one of the first responding agencies to conduct a rapid impact assessment. They have specialised capability and capacity to conduct assessments via the ability to:

- share field data collection with agencies,

- pre-plan for both collection and analysis,
- collect data on any device or platform (cloud-based), and
- provide on-the-ground data collection training.

NZ Urban Search and Rescue (USAR)

The Fire and Emergency New Zealand USAR function has a number of assessment levels, based on the INSARAG guidelines, which can be used during an emergency response. These include wide area [impact] assessment, as outlined in Phase 1, as well as:

- sector assessment and triage;
- primary search and rescue, and victim extraction;
- secondary search and rescue; and
- international deployment — full coverage search and rescue.

If deployed, USAR will conduct sector assessment and triage as part of Phase 2 rapid impact assessments. When conducting assessments, USAR will use the INSARAG marking system to deliver a comprehensive suite of visual displays that capture critical information, to both inform situational awareness and support planning and coordination (refer to [INSARAG Guidelines, 2015](#)).

3.2.3 Rapid building assessments

Initial rapid building assessments may begin within hours following an emergency. These assessments are likely to take about 15-20 minutes per building and involve external building inspections.

If the USAR function is deployed due to life safety risk, initial rapid building assessments will need to be delayed until search and rescue operations are complete.

Rapid building assessors will issue placards for each building they assess. “If a state of emergency or transition period is in force, these placards may be issued under the CDEM Act. If they are not in force, the Building Act will be used to manage restrictions on building access.”

For more information, refer to MBIE’s [Post-emergency building assessment](#).



Rapid building assessments are a brief evaluation of individual buildings and their immediate surrounds for impact, usability, and hazards exposure. The goal is to assess immediate risk to public safety, and consider actual or potential land instability and geotechnical hazards.

While initial rapid building assessments involve external building inspections, secondary assessments involve both internal and external inspections, and can take two to four hours per building. It may be more appropriate to start with these more detailed assessments for some key buildings (e.g. hospitals), infrastructure and more complex structures. This prioritisation will be made by the local EOC and/or CDEM Group ECC, in an emergency and can be informed by pre-event planning that has been undertaken to prioritise key buildings.

Placards

If a state of emergency or transition period is in force, rapid building assessors (acting under the authority of a Controller or being directed by a Recovery Manager):

- can 'mark' (issue a placard for) a building,
- have powers of entry, and
- can examine buildings.

There are three distinct powers under the CDEM Act (s.91 and 94H) that allow assessors to issue either white, yellow or red placards to buildings they have inspected.

If no state of emergency or transition period is in force, territorial authorities will use the Building Act to manage the restrictions on building access.

Authority

The National CDEM Plan 2015 sets out roles and responsibilities for building management, including those of MBIE and territorial authorities.

MBIE has developed a comprehensive set of guidelines that explain what is required, and which provide detailed steps and checklists to help territorial authorities plan for and carry out rapid building assessments. Refer to MBIE's [Post-emergency building assessment](#).



The [Managing buildings in an emergency – guidance for decision makers and territorial authorities](#) replaces the 2009 New Zealand Society for Earthquake Engineering (NZSEE) document *Building Safety Evaluation during a State of Emergency – Guidelines for Territorial Authorities*.

It takes account of lessons learnt from recent emergencies, including the 2010/11 Canterbury earthquakes and 2016 Kaikōura earthquake and tsunami, and subsequent changes to CDEM legislation and planning.

3.3 Phase 3: Specialist detailed assessment

Specialist detailed assessment involves specialised operations, undertaken by a range of agencies, generally conducted after the 48 hours following an emergency and often continuing into recovery.

The determination of these assessments is based on information collected, collated and analysed under Phase 1 and 2, and should be coordinated by the local EOC or CDEM Group ECC.

Purpose

The purpose of detailed assessments of the social, economic, built and natural environments are to:

- determine the requirement for (and prioritisation of) response and recovery activities (and services), and
- begin to build a picture of the cost of the emergency.

Assessments

There are a number of specialist detailed assessments under Phase 3 that may be conducted (see [Section 4 Impact assessment planning](#)).

The main categories include:

- welfare registration and needs assessment, which involves the collection of personal information and the process of understanding

the needs of people affected by an emergency and provides the basis for welfare services delivery and data management;

- lifeline utilities (infrastructure services to the community such as water, wastewater, transport, energy and telecommunications), which will conduct assessments based on their specific incident management, emergency management and/or business continuity plans to ascertain the continuity of operations and supply of services to affected communities; and
- building assessments – Detailed Damage Evaluations – which involve an in-depth engineering assessment focused on determining the extent and nature of structural impact suffered by a building.

Agencies and organisations involved in these assessments may use their own case management and/or information systems to undertake activities or deliver services. The interoperability of data collection and management in Phases 1 and 2 is therefore important (see [Section 4 Impact assessment planning](#)).

3.3.1 Welfare registration and needs assessment

[New Zealand's National Disaster Resilience Strategy Rautaki Manawaroa Aituā ā-Motu](#) includes an objective to:

Ensure that the safety and wellbeing of people is at the heart of the emergency management system.

The objective of welfare in the CDEM context is to:

- provide for the needs of people affected by an emergency, and
- minimise the consequences of emergencies for individuals, families/whānau, communities and hapū.

This is achieved through welfare services activities across risk reduction, readiness, response and recovery.

The principles that underpin welfare services emphasise the importance of keeping a people-centred focus when delivering all aspects of CDEM. These include recognising the diverse and dynamic nature of communities, and strengthening self-reliance as the foundation for individual, family/whānau, community and hapū resilience.

Welfare registration involves collecting basic, personal information to identify people who have been affected by an emergency and may be in need of welfare services.

Needs assessment is the process of understanding the needs of people affected by an emergency. It also includes working with support agencies, including community-based organisations and networks, to identify and deliver appropriately integrated services and information to address welfare needs.

CDEM is the agency responsible for coordinating welfare registration and needs assessment at local, CDEM Group and national levels (National CDEM Plan 2015).

The National Emergency Management Agency is responsible for providing advice and coordinating the Needs Assessment sub-function at the national level. This legislative responsibility includes the provision of a system to facilitate the collection of data to inform the assessment of immediate and ongoing welfare needs. NEMA is leading a project to work with CDEM to develop the Āwhina Welfare Needs Assessment system. Further guidance will be provided upon completion of the project.

Welfare registration

Welfare registration involves collecting information from people to identify who has been directly affected by an emergency and may require welfare services.

Welfare needs assessment

Welfare needs assessment involves the identification of assistance that affected people require as a direct result of an emergency event, and assignment of actions to relevant agencies if required.

Welfare registration and needs assessment concept of operations

A procedural concept of operations (Figure 2) for the welfare registration and needs assessment process sets out four steps in data management.

1. Collection
2. Analyse and Assign
3. Acknowledgement
4. Service Delivery and Closure.

An initial step is the coordination of all agencies and personnel tasked with welfare registration and needs assessment. CDEM has the responsibility for coordinated welfare registration and needs assessment through the CDEM Group / Local Welfare Manager. Many agencies can be involved and specific skills in engaging with people who may be anxious or stressed, as well as knowledge of the tools and systems being used, are required.

Steps 1-3 of Figure 2 represent registration and rapid needs assessment.

Detailed needs assessment is undertaken by the agencies that deliver the welfare service(s) required to address the identified need(s) in steps 4.

The process is cyclical and a welfare need is only closed off in the system when the appropriate welfare service has been delivered by CDEM, or acknowledged by an agency (step 3). The affected person remains in the system (with permission) as they may have further needs related to the specific emergency that require welfare services at a later time.

The welfare registration and needs assessment process coordinated by CDEM continues into and throughout recovery to meet long-term needs and inform the recovery process.

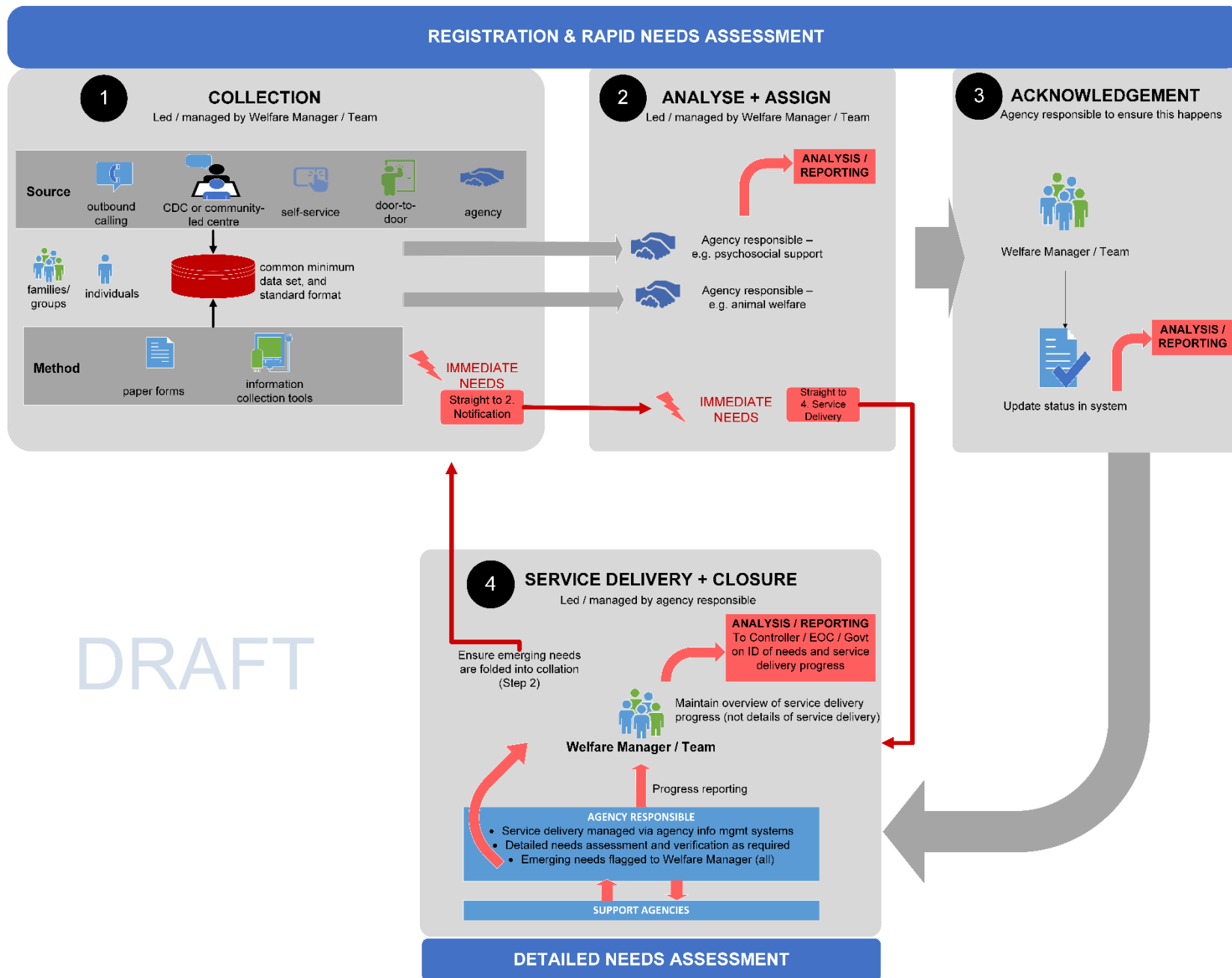


Figure 2 Welfare Registration and Needs Assessment – Procedural Concept of Operations

Privacy and consent

Welfare registration and needs assessment involves the collation and use of personal information from people affected by emergencies. Any agency collecting, storing, sharing or disposing of that personal information need to ensure compliance with the Privacy Act 1993, in particular against the Principles in section 6 of this Act.

Principles 1-4 in section 6 of the Privacy Act 1993 govern the collection of personal information. CDEM Groups must take such steps, as required in the circumstances, to ensure the individual concerned is aware of why personal information may be collected, how it is collected and who it will be shared with, etc. The best way to do this is through a clear, written privacy statement.



[The Privacy Commissioner's](#) website has tools to help agencies create privacy statements. Also refer to [The Privacy Act](#).

This guidance will be updated once the new Privacy Act 2020 comes into effect 1 December 2020.

Security of IT systems

The National Emergency Management Agency has classified the personal information that may be collected and managed via the welfare registration and needs assessment process as SENSITIVE. This assessment was based on the following guidance provided by Government Communications Security Bureau (GCSB): <https://www.gcsb.govt.nz/assets/GCSB-Documents/Guidelines-for-Protection-of-Official-Information-Wallchart.pdf>

It is strongly recommended that agencies ensure that any IT systems used to collect and manage people's personal information adhere to the security requirements as defined by the GCSB for information classified as SENSITIVE. Refer <https://www.nzism.gcsb.govt.nz/ism-document/>

3.3.2 Lifeline utilities assessments

First and foremost, lifeline utilities are required to manage their own response with the aim of achieving or maintaining their pre-determined service levels. They should do this by following their internal incident management, emergency management and/or business continuity plans.

Lifeline utilities, as a priority, must then make contact with CDEM to provide status reports on the status of their network and the outcome of any disruption assessments.



Expectations of lifeline utilities during a response are outlined in Section 13 of the [Guide to the National CDEM Plan Order 2015](#). Those pertaining to assessments include providing information (where possible) on:

- the scale and extent of event impact on networks;
- major disruptions experienced, including location and number of users affected;
- the nature and locations of critical immediate actions;
- estimated restoration times for known disruptions;
- priority areas of response action being planned or undertaken; and

- alternative solutions available to users (where appropriate).

Lifeline interdependencies

All lifelines utility services rely to some extent on some or all of the other lifeline services in order to operate. For example, most other lifeline utilities have some dependency on electricity to maintain functionality. While typically lifeline utilities have backup generation at their most critical sites, impacts on electricity would impact on telecommunications, water supply, wastewater, gas and fuel supply after varying periods of times.

Lifeline utility services are also essential for the functioning of critical community facilities (e.g. hospitals, schools etc.) and often have interdependencies with the delivery of welfare services.

3.3.3 Building assessments: Detailed Damage Evaluation (DDE)

After rapid building assessments have been undertaken it is usually the responsibility of the building owner to commission any subsequent Detailed Damage Evaluations (DDE) during Phase 3 and transitioning into recovery.

In most circumstances, territorial authorities (or the Local Controller or Recovery Manager) may seek a DDE from an owner if their building is deemed a hazard that may impact critically on recovery (e.g. if it requires urgent demolition).

The territorial authority will often need to commission expert advice to determine which buildings need further scrutiny. Once complete, a decision on whether remedial building work is needed and a notice to fix, under the Building Act, will need to be made.

Heritage listed buildings

[The Heritage New Zealand Pouhere Taonga Act](#) prohibits the modification or destruction of a protected site unless authority is obtained from Heritage New Zealand Pouhere Taonga. This Act, however, also provides for a fast-track decision-making process during, or following, a state of emergency.



Refer to MBIE's [The managing buildings in an emergency – guidance for decision makers and territorial authorities](#).

Section 4 Impact Assessment Planning and Response

Impact assessment is fundamentally a data collection and analysis process to inform what coordinated and prioritised actions may be required in the response and recovery stages of an emergency. Planning to undertake impact assessment must occur in the readiness stage, prior to an emergency. This will ensure a coordinated, collaborative approach from all mandated stakeholders.

Having developed impact assessment plans prior to an emergency, the plans can be tailored during a response according to the needs of, and consequences to, the community, as well as Controller priorities and agency current best practice.

This section provides guidance for CDEM Groups to undertake impact assessment planning in the readiness stage (that is prior to an emergency response), followed by guidance for integrating this planning into the response and recovery action planning process.

4.1 Considerations of an impact assessment plan

When developing an impact assessment plan, there are a number of considerations that will support robust planning outcomes. Those undertaking impact assessment planning should be ensuring that the plan:

- enables agencies and organisations mandated to conduct impact assessments to do so in a collaborative and coordinated manner, with aligned standard operating procedures;
- is underpinned by available open-source base data that has a creative commons licence, including information on regional and local areas and communities, population demographics, hazards, maps, community response/resilience plans, hotspots and vulnerability studies;
- identifies all resources at CDEM Groups' and agencies' disposal when conducting an impact assessment (including paid emergency management practitioners and volunteers) are understood, utilised and planned for, including identifying any resource deficiencies;
- includes the local community, who may have detailed knowledge of local people and areas of potential vulnerability during an emergency, are engaged and community assets utilised;
- incorporates the use of common forms (paper-based and electronic) to increase operational effectiveness, and common data schema to ensure data comparability across CDEM Groups and agencies; and
- uses geospatial capability for electronic data capture whenever and wherever practicable.

4.2 Outline requirements of an impact assessment plan

An impact assessment plan needs to be comprehensive and needs to include the following at a minimum.

- Identification and description of lifelines and infrastructure critical to the normal functioning of communities. Wherever possible, this should include the responsible agency, specific locations and access information, along with information on vulnerability and recoverability, and interdependencies.
- Prioritisation for assessment across critical lifelines and infrastructure capabilities as well as communities. A mature plan will further consider options for grouping impact assessment by geographical location, agency groupings or functional arrangements. For example, impact assessment of electrical infrastructure in an isolated community may coincide with the rapid needs assessment by welfare agencies in that same community and plan on using the same transport resources for access.
- Health and safety considerations, to ensure the safety of personnel conducting the impact assessment.
- Coordination arrangements for each level and type of emergency.
- Clearly defined roles and responsibilities for all agencies and organisations potentially involved in each impact assessment phase.
- A standard process for collection, collation, analysis and reporting of impact-related information including the relevant forms in either paper based or electronic format.
- Indicative response and recovery timeframes.

CDEM Group level

At the CDEM Group level, an impact assessment plan is a conceptual document which needs to include:

- regional-level community and hazard analysis;
- delegated authority (what role(s) is authorised to direct, or initiate, a regional impact assessment across the CDEM Group area) during both response and recovery;
- clearly identified and agreed roles and responsibilities across the three phases;
- a pre-determined, prioritised list of regionally critical infrastructure, facilities and areas for priority assessment;
- regional logistics arrangements, including:
 - providing impact assessment personnel and equipment to affected local authorities, and
 - coordination and prioritisation of resources for multi-local authority assessment;
- regional to local coordination and direction to the appropriate assessment agency; and
- procedures to collect, manage and disseminate data region-wide.

Local level

At the local level, an impact assessment plan needs to inform and reflect the CDEM Group's impact assessment plans, while reflecting the local community including key heritage sites or precincts; hazard analysis; critical infrastructure, facilities and areas to assess; and local impact assessment roles and responsibilities.

Baseline data

An essential part of planning for impact assessments is gathering information about regional and local areas and communities, including baselines such as population demographics; statistical data on assets in the area; maps; aerial and satellite imagery; data from previous emergencies; social context; community response/resilience/recovery plans; and open source data that can assist in the assessment process.

Reviewing this information establishes a baseline for measuring the impact of an emergency in the wider context.

This information may be gathered from:

- local authorities;
- CDEM Group and local emergency management offices;
- CDEM Group partner organisations, including emergency services;
- community networks and groups;
- critical infrastructure providers (lifeline utilities);
- regionally and locally critical businesses and business groups;
- research providers, such as universities and Crown Research Institutes (CRI); and
- government agencies, including those with responsibilities under the National CDEM Plan Order 2015.

Baseline data can assist with the prioritisation of survey areas and/or priority of effort. In particular, existing hazard, vulnerability and risk studies or CDEM Group planning risk assessments may be useful for verifying or giving credibility to incoming information in advance of undertaking an impact assessment. The information is useful for cross checking other sources of information where deployed personnel are yet to undertake an impact assessment.

It is essential to ensure that information derived from social media, or crowdsourcing, has been checked with personnel deployed to survey area(s), or has undergone a quality assurance process.

GIS mapping

Current and accurate maps are essential for undertaking an impact assessment. Many categories of information can be displayed on maps and several layers of information can be overlaid on the same map.

Thematic datasets using satellite imagery, infrared imagery or aerial photographs, combined with topographic, cadastral (property boundaries), or rates data can give a picture of the scope of the emergency.

GIS mapping information may include:

- known hazard-specific inundation areas/impact zones,
- demographic information,
- potential community vulnerabilities,
- critical buildings such as hospitals or schools,
- at risk buildings such as earthquake-prone buildings,
- lifeline utilities, and
- other infrastructure, such as bridges and roads.

GPS-enabled devices

GPS-enabled devices (e.g. phones or tablets) that have GPS capability are effective tools for capturing accurate point location and tracks. GPS location data to geo-locate information being collected by assessors assists in mapping the collected data.

If these devices are used, property IDs from council databases need to be included in local datasets so that accurate information can be captured.

Refer to *Section 2 of The National Impact Assessments Data Set and Dictionary Technical Standard [TS 05/20]*.

Data standards

The National Impact Assessments Data Set and Dictionary Technical Standard [TS 05/20] is a minimum set of standard data definitions agreed for collection and reporting by all agencies and emergency services personnel. It is the authoritative document on developing data collection, forms and schemas. These need to be used during deployment as well as exercises.

Wide area impact assessment form

A wide area impact assessment form needs to include:

- a description of the area to be surveyed (space for a map to be inserted may be included or may be attached separately if this is more appropriate);
- the name of emergency;
- the date and (if applicable) duration of the emergency;
- the date and time of the assessment;
- the assessor's details;
- the status of people and animals in the survey area, including initial numbers of injuries, fatalities and major displacements of the population;
- the status of the assets being assessed, such as obvious structural impact to buildings and infrastructure; and
- electronic locations of visual recorded data, such as photographs or videos.

When inserting or sketching a map of the area, the locations of people, animals or assets should be indicated using reference codes on the form.

Rapid impact assessment form

The [rapid impact assessment form](#) (template available alongside this Director's Guideline) needs to include the following.

- Description of the area to be surveyed, usually of a more specific locality, such as a street within a larger affected area (space for a map to be inserted may be included or may be attached separately if this is more appropriate)
- Name of emergency,
- Date and (if applicable) duration of the emergency
- Date and time of the assessment
- Assessor's details
- More detailed information about the status of people and animals (if any) in the survey area, including:
 - injuries or fatalities,
 - displacement or isolation,
 - immediate need for the deployment of welfare services (including support to animals), and
 - need for more in-depth welfare needs assessment
- More detailed information about the status of the assets (buildings and infrastructure)
- Electronic locations of visual recorded data, such as photographs or videos.

Paper-based tools/forms

While electronic assessment tools are important for rapid data capture, paper-based tools and forms also need to be developed and available as a backup in case of electricity, internet and/or telecommunications network disruption.

CDEM Groups need to ensure that the relevant online surveys (with secure login access) and paper-based forms, checklists and process documents are readily available to responding agencies, personnel responsible for impact assessment, ECCs and EOCs prior to an emergency.

When using paper-based forms or tools, privacy considerations must be paramount, including storage and sharing of information. Input all paper-based forms into an electronic database for secure storage and dissemination in meeting needs or fulfilling tasks.

All [forms and schemas](#) for Phase 2 and 3 are also available alongside this Director's Guideline.

4.3 Implementation of an impact assessment plan

Information collection

An impact assessment plan developed in the readiness stage, prior to an emergency response, is not implemented as a stand-alone plan. The plan that is developed during readiness must be tailored to the context of the emergency response. Therefore, implementation of the impact assessment

plan is achieved through incorporating relevant aspects from the plan into extant response and recovery action planning processes.

Any data collection requires a rigorous quality assurance process to support it, with personnel deployed to survey area(s) to ensure that assumptions and/or constraints are examined, challenged and understood.

There are a number of considerations when collecting information, including privacy in collection, storage and dissemination, consideration of an electronic data capture solution when records exceed 50-100, and procedures for the appropriate storage and archiving of data in accordance with Government requirements.

For best practice in New Zealand data management, storage and policies, see the [New Zealand Data and Information Management Principles](#).

During the planning process, there may be requests for information assigned to an EOC/ECC function or agency.

The Intelligence function within an ECC/EOC manages this process via information collection plans. Details on how to develop and manage information collections plans can be found in [CIMS 3rd edition](#), but an example is provided below (Table 2).

Table 2 Example of an Intelligence Collection Plan (Source: CIMS 3rd edition)

Number	Date/Time	Intelligence Requirement	Assigned	Status
001	12/3, 2145	What is the casualty status as at 1800 hours 12/3?	Ambulance, Police	Closed
002	12/3, 2200	Is the bridge on SH9 over White River open?	Police, Roding	Closed
003	12/3, 2245	What is the operational status of the Greyville Hospital?	DHB	Open
004	12/3, 2315	What welfare support can be provided from regional and national?	ECC	Closed
005	13/3, 0100	What is the forecast rainfall in the White River catchment for the next two days?	Intelligence	Closed

4.3.1 Authority

Establishing authority to conduct impact assessments

The authority to conduct impact assessments falls to the National Controller, CDEM Group Controller or Local Controller when a state of emergency has been declared, or a local authority or agency when a state of emergency has not been declared.

Impact assessments may also be continued throughout the recovery period. The authority to conduct impact assessments during a transition period falls to the Recovery Manager (appointed under the CDEM Act), who exercise

their powers under the transition period notice, or a local authority or agency when notice of a transition period has not been given.

In the event where CDEM is a support agency, the lead agency should liaise with the CDEM Group Local Controller or Recovery Manager on any consequence management activities, including impact assessments.

Agency roles and responsibilities

Certain agencies have clearly defined responsibilities under existing primary legislation, while others have well-developed roles and responsibilities outlined in national/regional agency plans and the [National CDEM Plan 2015](#).

Once authority to conduct impact assessments is established, it is critical that all agencies have a clear understanding of this authority and their own and others' responsibilities during and following (including use and access to the data collected) the impact assessment process.

Assessment personnel

The management of impact assessments must fit within the existing CDEM structure and allow for adequate control and coordination during an emergency.

As such, to ensure that impact assessments are conducted in a coordinated manner, it is important to clarify reporting lines within and between each team, and to ensure clear lines of communication back to the coordination and/or operations centre.

Conducting a briefing with all relevant agencies involved in impact assessments, prior to those assessments taking place, ensures that teams are coordinated, have situational awareness and understand hazards/hazardous areas and timeframes for assessment uploads and/or check in with the EOC/ECC.

This must be done for every impact assessment across the three phases.

4.3.2 Integration of impact assessment planning into Action Planning

Integration of impact assessment planning

Figure 3 describes the alignment between impact assessment planning and the integration of those planning outcomes into the action planning process for response and recovery. Impact and Needs Assessment Plans must be tailored to the requirements of the response. Wide Area Impact Assessments may commence very early in the response based on existing plans. As situational awareness improves, and as the planning and intelligence functions proceed through the planning process, priorities and tasks for impact assessment will be formalised through the release of the Action Plan by the Controller.

Integration of Rapid Damage & Needs Assessment Plan into Response Planning and Intelligence Processes

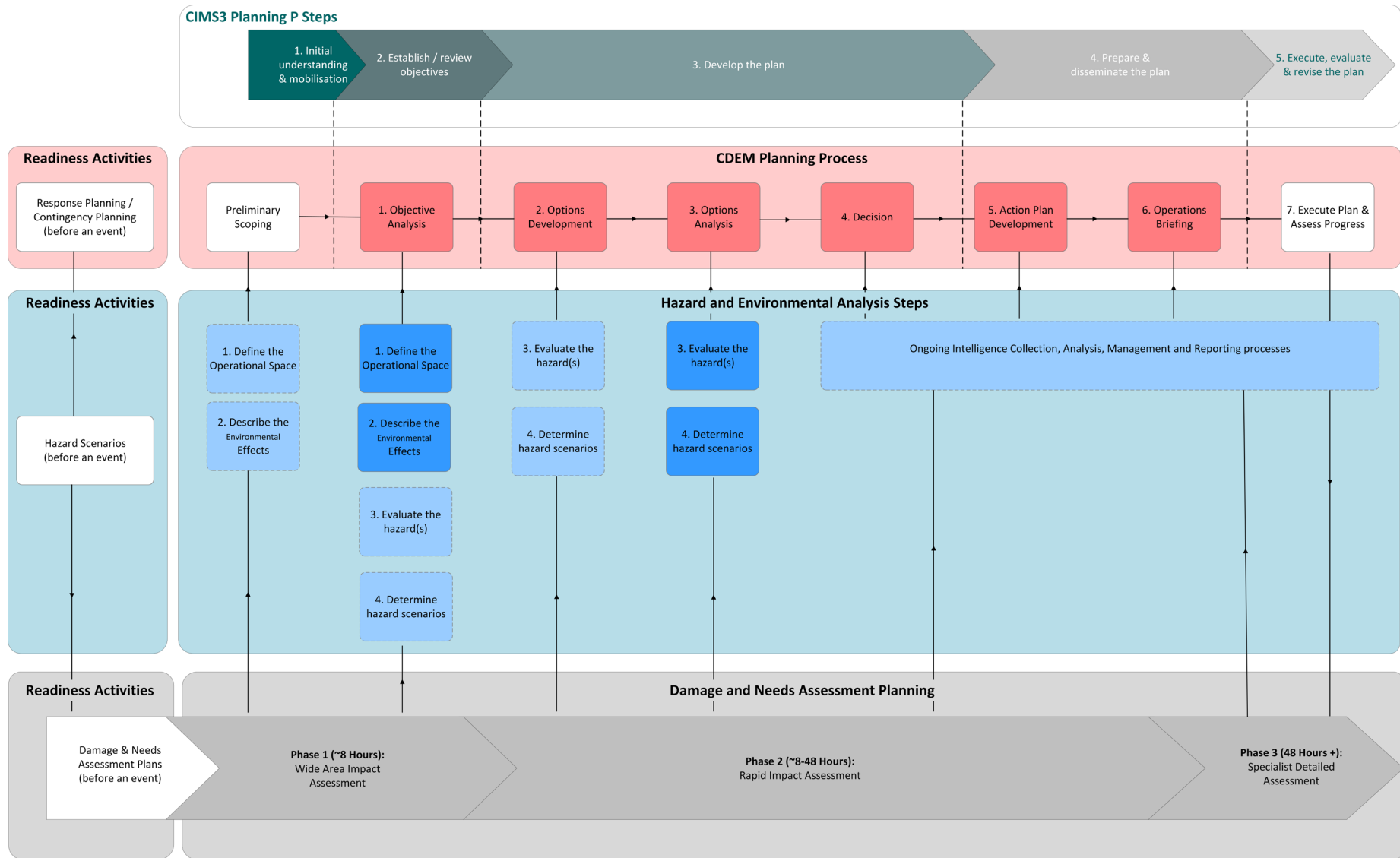


Figure 3 Integration of impact assessment planning during response

4.3.3 Prioritisation of survey areas and resourcing

Analyse initial information	<p>In the early stages of an event, preliminary information (including hazard and/or risk assessments) might indicate impact and/or consequences to the community. This may be based on a pre-event forecast.</p> <p>Use this information, together with the baseline data, to set the priority survey areas for Phase 1 and Phase 2. This could include facilities and/or infrastructure, and would focus the assessment on the area of greatest need.</p>
Define area for survey	<p>The person authorising the impact assessments determines the overall priorities for each impact assessment phase, including identifying survey areas, facilities and/or infrastructure, and task-objectives for each deployed team.</p> <p>A map with clearly defined boundaries may be useful to ensure greater coordination and mitigate duplication from teams.</p>
Use of resources	<p>CDEM Groups and agencies need to be aware of, understand and plan for how to use all the resources at their disposal when identifying and conducting impact assessments in prioritised survey areas.</p> <p>Resource deficiencies identified and addressed during the planning process, will ensure that the response is appropriately staffed for the duration of the emergency and mitigates capability gaps (e.g. staff returning to business-as-usual). Where a desirable level of resourcing cannot be achieved, impact or needs assessment tasks may need to be prioritised and coordinated to match available resources.</p>

4.3.4 Data collection, intelligence analysis and dissemination

Data collection, analysis and dissemination	<p>To achieve coordinated assessment, agencies/organisations can use different tools and methodologies, but must share and compare assessment results to enable joint analysis to inform action planning. This is known internationally as <i>harmonised assessment</i>.</p> <p>This assessment process is different from <i>joint assessment</i>, which is when agencies/organisations use a single tool and/or methodology to carry out an assessment with single assessment results. This more commonly occurs in Phase 2.</p> <p>For both assessment concepts, the fundamental approach is that they are both using common data definitions and standards. Refer to <i>The National Impact Assessments Data Set and Dictionary Technical Standard [TS 05/20]</i>.</p> <p>Once the data has been collected, as requested under the information collection plan (example Table 2), each information requirement is:</p> <ul style="list-style-type: none">• collated,• analysed, and• verified by the Intelligence function within an EOC/ECC.
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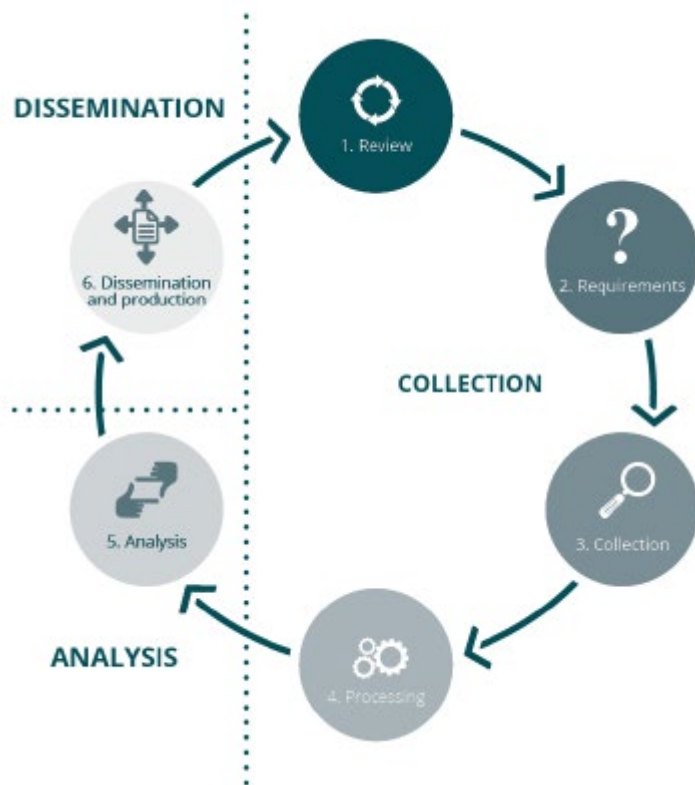


Figure 4 The Intelligence Cycle (Source: CIMS, 3rd edition)

Using the [CIMS Intelligence Cycle](#) (see Figure 4), the consolidated data is analysed by the Intelligence function and then disseminated by delivering intelligence products to inform EOC/ECC outputs, including:

- situation reports,
- impact analysis reports,
- intelligence summaries,
- status reports, and
- maps.

It is necessary to update these intelligence products within each operational period to maintain situational awareness and to support response and recovery activities effectively. This intelligence cycle is iterative and applies across all three phases of impact assessment as data is progressively collected, analysed and disseminated to build situational awareness and inform response actions.

To ensure system integrity, all agencies must retain copies of Intelligence Cycle products.

Intelligence analysis

For a Controller or Recovery Manager to understand the situation and to prioritise and coordinate resources to where they are needed, there are standing information requirements that need to be known.

Table 3 outlines the standing information needs and requirements that the Controller / Recovery Manager need in order to answer critical questions around impacts and consequences in and following an emergency to generate situational awareness.

Table 3 Standing information requirements

Data	Description	Interested agencies	Data use (including activities)
People status	Numbers and location of displaced, missing, injured, deceased (including foreign nationals); welfare services need.	<ul style="list-style-type: none"> • Territorial Authorities • Civil Defence Emergency Management • New Zealand Police • Fire Emergency New Zealand • Ministry of Health • Ministry of Social Development • Ministry for Business, Innovation, and Employment • Oranga Tamaraki; • Ministry of Primary Industries • Ministry for Foreign Affairs and Trade • Te Puni Kokiri • NZ Defence Force • Other Welfare Services support agencies, including NGOs and community-based organisations • Department of Prime Minister and Cabinet 	<ul style="list-style-type: none"> • Registration • Needs assessment/ welfare services delivery; • Cordon management • Evacuations • Diplomatic support for foreign nationals
Housing and property status	The extent of impact to housing stock and other buildings (including numbers and locations)	<ul style="list-style-type: none"> • Territorial Authorities • Civil Defence Emergency Management • New Zealand Police; • Ministry for Business, Innovation, and Employment • Ministry of Social Development • Earthquake Commission • Housing NZ Corporation • Insurance Council • Ministry of Health • Ministry of Primary Industries • Land Information NZ • Department for Internal Affairs • Te Puni Kokiri 	<ul style="list-style-type: none"> • Needs assessment/ welfare services delivery • Evacuations • Cordon management • Criticality of site and prioritisation of actions • Insurance • Restore/repair planning • Economic impacts (financial measures in support)

		<ul style="list-style-type: none"> • Other welfare services support agencies, including NGOs and community-based organisations • Department of Prime Minister and Cabinet 	
Community infrastructure status	Impact on community infrastructure (e.g. hospitals, medical centres, rest homes and special care facilities, welfare services agencies, educational institutions, commercial infrastructure, including financial, post and courier functions), and estimated timeframe of outages.	<ul style="list-style-type: none"> • Territorial Authorities • Civil Defence Emergency Management • NZ Police • Ministry for Business, Innovation, and Employment • Ministry of Health • Ministry of Education • Department for Internal Affairs • Te Puni Kokiri • Other Welfare Services support agencies including NGOs and community-based organisations • Department of Prime Minister and Cabinet 	<ul style="list-style-type: none"> • Evacuations • Lifeline interdependencies for restoration and prioritisation • Resource needs (e.g. fuel) • Supply chain dependence • Children and young people wellbeing • Psychosocial impact • Needs assessment / welfare services delivery
Transport infrastructure status	The extent of impact to roads, bridges, rail, harbours and airports; and estimated timeframe of outages.	<ul style="list-style-type: none"> • Territorial Authorities • Civil Defence Emergency Management • Lifeline Utilities • Ministry for Business, Innovation, and Employment • Ministry of Transport • NZ Transport Agency • Treasury • Department for Internal Affairs • Civil Aviation Authority • NZ Rail • Fast Moving Consumer Goods • Land Information NZ • Welfare Services agencies • Department of Prime Minister and Cabinet 	<ul style="list-style-type: none"> • Lifeline utilities interdependencies, including impact on restoration times, and prioritisation • Welfare services interdependencies; • Supply chain impacts (e.g. FMCG) • Community impact (e.g. access to properties, community access to amenities)
Lifeline utilities status	The extent of impact to lifeline utilities, and estimated timeframe of outages.		

Environmental status	The extent of impact to the environment (including the impact on farming activity).	<ul style="list-style-type: none">• Territorial Authorities• Civil Defence Emergency Management• Ministry for the Environment• Ministry for Primary Industries• Department of Internal Affairs• Te Puni Kokiri• Department of Prime Minister and Cabinet• Science agencies	
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This information will be used in the development of action plans, public information messages and media releases and it will inform further detailed assessment, or in support of response and recovery activities. The priorities for obtaining these information requirements will depend on the specifics of a region's baseline data and the consequences of the specific hazard.

These assessment activities will not only form the basis of response action plans, but will also inform the response transition report and the recovery action plan.

Display and sharing information

Interoperable data and information systems enable shared situational awareness and informed, timely and consistent decision-making. This becomes particularly important as complexity or scale of the response or recovery increases.

To ensure effective coordination, information needs to be made available through an electronic database, which displays the collective information to all relevant elements of the response and recovery, including:

- the Controller / Recovery Manager,
- the Incident Management Team,
- liaison personnel of other response agencies (Fire and Emergency New Zealand, NZ Police, Ministry of Health, and Ministry for Primary Industries) within the EOC/ECC, and
- other response coordination facilities and partner agencies.

One means of displaying information in an EOC/ECC is using GIS, web mapping applications and dashboards.

Impact assessment dashboard

An impact assessment dashboard is an information management tool that visually tracks, analyses and displays key performance indicator metrics and key data points to monitor the progress and outputs from the assessments process. Dashboards are customised to meet the specific needs of the emergency.

Behind the scenes, a dashboard connects to files, attachments, services and the application programming interface (API). The interface displays all this data in the form of tables, line charts, bar charts and gauges.

A data dashboard is the most efficient way to track multiple data sources because it provides a central location for the EOC/ECC for monitoring and analysis. Dashboards typically include the following headings, but may be customised to suit the specific needs of the emergency.

- Name, date and time of emergency
- Date and time of the data collection
- Name of agency who supplied the primary data

- Names of sources of secondary data
- A description or map of the area assessed
- Location, scale, status of impact assessments, assets, affected population and delivery of services.

Web mapping

Web mapping applications enhance situational awareness shared horizontally and vertically between agencies involved in an emergency, as well as the media and public.

Web maps provide a visual summary of information and can include near-real-time or real-time feeds from Application Programming Interfaces (API) or Web Mapping Services (WMS); for example, NZTA road closures, MetService weather watches and warnings, and impact assessment data. Displaying critical information as static layers captures snapshots at decision points in the emergency.

Sharing data online can create dependencies on external content and online capability. Mitigate risks by backing up important data locally or remotely, and maintaining offline GIS capability.

Section 5 National Impact Assessments Data Set and Dictionary

The *National Impact Assessments Data Set and Dictionary Technical Standard [TS 05/20]* is an essential companion to this Guideline, which sets out a minimum set of data fields agreed for collection and reporting by CDEM Groups, agencies and emergency services.

This section outlines the purpose, objectives and intended use of the *National Impact Assessments Data Set and Dictionary [TS 05/20]*.

5.1 Purpose

The purpose of the Technical Standard is to provide a common language for carrying out information collection in an emergency management context, including rapid impact assessments and welfare needs assessments.

The Technical Standard has been designed to improve the comparability of data across organisations nationally. It constitutes the authoritative source of information about endorsed national metadata standards and provides the basis for consistent national collection and reporting.

5.2 Objectives

The objectives of the Technical Standard are to:

- establish a core set of uniform definitions relating to assessments used in the emergency management context;
- promote uniformity, availability, reliability, validity, consistency and completeness in the data;
- accord with nationally and internationally agreed protocols and standards, wherever possible;
- promote the national standard definitions by being readily available to all individuals and organisations involved in the generation, use and/or development of impact assessment information; and
- facilitate and promote the development of good data definitions across the emergency management sector.

5.3 Audience and intended use

The Technical Standard is intended for use by CDEM Groups, emergency services and operational personnel from other responding agencies.

Technical use

The data element definitions provided in the Technical Standard are intended to be used to build any type of information collection system or schema. Data elements from the Technical Standard may be used for different assessment purposes in different contexts.

The Technical Standard **does not dictate** what information is gathered (and what questions are asked) in different types of information collection systems. Rather, it provides the technical building blocks for collecting and recording data in a consistent way so that information is able to be easily interpreted and shared across agencies.

The Technical Standard does not preclude agencies and service providers from collecting additional data to meet their own specific needs

Intended use

The Technical Standard is intended to be used during Phase and Phase 3 of the impact assessment process.

Appendix A References

- Department of Internal Affairs, [The New Zealand Government Open Access and Licensing \(NZGOAL\) framework \(version 2\)](#)
- Department of Prime Minister and Cabinet, [The New Zealand Coordinated Incident Management System \(CIMS\) 3rd edition](#)
- Digital Government New Zealand, [New Zealand Data and Information Management Principles](#)
- International Search and Rescue Advisory Group (INSARAG), [INSARAG Guidelines](#), 2015
- Ministry for Culture and Heritage, [Heritage New Zealand Pouhere Taonga Act 2014](#)
- Ministry for Business, Innovation and Employment, [The Managing buildings in an emergency – guidance for decision makers and territorial authorities](#)
- National Emergency Management Agency, [National Impact Assessments Data Set and Dictionary Technical Standard \[TS 05/20\]](#)
- National Emergency Management Agency, [National Civil Defence Emergency Management Plan Order 2015](#)
- National Emergency Management Agency, [CDEM Act 2002](#)
- National Emergency Management Agency, [New Zealand's National Disaster Resilience Strategy Rautaki Manawaroa Aituā ā-Motu](#)
- Ministry of Justice, [The Privacy Act 1993](#)
- [Office of the Privacy Commissioner](#)
- Tohatoha Aotearoa Commons, [Creative Commons](#)