

Tairawhiti CDEM Group

Fuel and generator contingency plan 2019



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v1.0	26 June 2019	Approved and published version
v1.1	1 July 2019	Version updated to address typos and minor issues
v1.2	2 July 2019	Update to fix mis-spelled name and omission

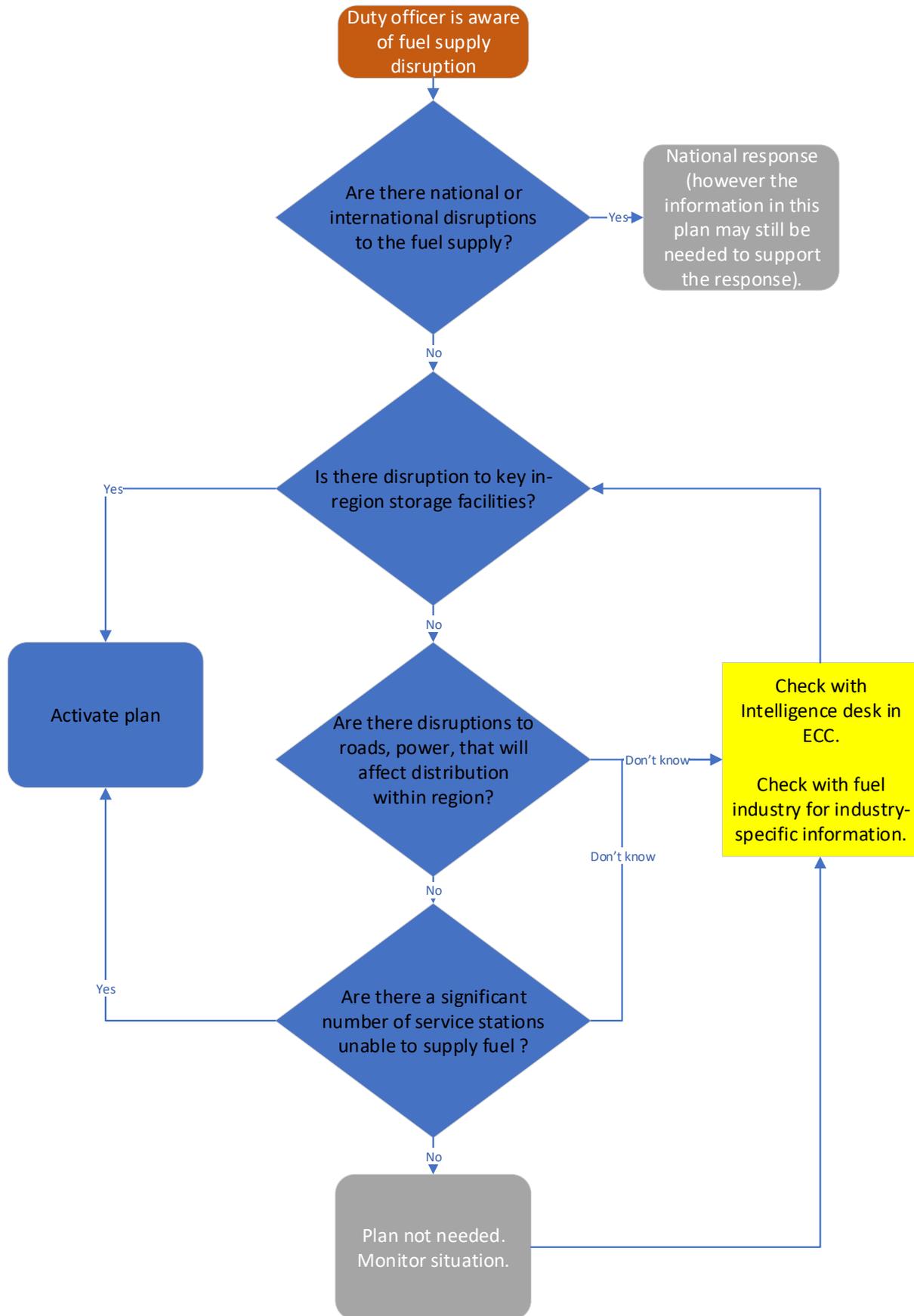
ACRONYMS USED IN THIS DOCUMENT

CDEM	Civil Defence and Emergency Management
ECC	Emergency Coordination Centre
GDC	Gisborne District Council
NCMC	National Crisis Management Centre

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Decision tree activation of this fuel plan



1. Introduction

1.1. Scope

This Plan will give effect to the National Civil Defence Emergency Management Fuel Plan [SP 03/12] for the Tairāwhiti District and incorporates the District's emergency generator plan.

The main purpose is to set out arrangements to promote continued fuel supply and available generator provision to CDEM-critical customers who may be involved in a response to a civil defence emergency.

The plan provides:

- Support for the fuel sector; and
- Identification of the interactions between regional CDEM and the fuel sector and generator holders for the prioritisation of generators; and
- Identification of default regional CDEM critical fuel and generator customers and priorities; and
- Identification of key response sites' fuel and generator requirements.

This plan covers the response to a local or regional event that impacts fuel distribution or significant power outage in part or all of the Tairāwhiti District.

The plan does not cover:

- Response to an incident (e.g. a fire at a service station), however if that incident should disrupt the fuel or power supply to a district, city, region or nationally then this plan may be activated;
- Response to a national or international crisis which is coordinated by central government and government agencies;
- Business continuity arrangements of fuel companies and service stations.
- Emergency response arrangements or prioritisations for Liquid Petroleum Gas (LPG) fuel which will rely heavily on road transport.

Purpose of plan

This plan enables the Lifelines Coordination section of the Emergency Co-ordination Centre to support the fuel sector and critical customers in an emergency in the Tairāwhiti District. It is designed to be used when the disruption caused by the emergency exceeds the fuel and generator suppliers sectors' ability to respond.

This plan supports the *Tairāwhiti CDEM Group Adverse Event Plan* and Relevant Group Contingency Plans and the *National Civil Defence Emergency Management Fuel Plan 2012*.

1.2. Planning framework

The National Fuel Emergency Plan provides a brief industry overview and description of relevant legislation for the fuel industry.

Under the Civil Defence and Emergency Management Act 2002 (CDEM Act), Civil Defence Groups may provide for conservation and supply of fuel when a state of emergency is in force (section

85(1)(e)). This plan gives effect to the National Fuel Emergency Fuel Plan¹ (National Fuel Plan) for the Tairāwhiti District.

The *National Fuel Emergency Plan* provide the framework for a national response to a fuel emergency. A national response could be in response to an event in New Zealand that affects more than one region or an international disruption to New Zealand's fuel supply. The relevant clauses of the CDEM Act 2002 are listed in Appendix 7: relevant clauses from CDEM Act 2002'. It includes five mechanisms to either reduce demand or increase the supply of fuel. The measures to improve supply are:

- the drawdown of stocks,
- relaxation of fuel specifications,
- surge production;
- while measure to restrain demand are:
- voluntary demand restraint and
- mandatory demand restraint (including speed limit reduction and quantity rationing)².

The Ministry of Business, Innovation and Employment (MBIE) would implement the relevant mechanisms after consulting the National Emergency Sharing Organisation³.

While the above legislation provides for fuel outages, the CDEM Act 2002 allows for co-ordination of resources in an emergency event. This is relevant to the prioritisation of the use of generators in an emergency event.

1.3. Roles and responsibilities

The National CDEM Fuel Plan, Part A Section 3 outlines the roles and responsibilities of the petroleum sector and CDEM entities.

CDEM in the Tairāwhiti District

The Tairāwhiti Civil Defence Emergency Management Group (the CDEM Group) is made up of a number of agencies from the region who work together to provide civil defence and emergency management to the region. This includes the Gisborne District Council, emergency services, lifeline utilities and any other agency with civil defence and emergency management responsibility.

During an emergency, liaison with the fuel sector and generator suppliers will be done by the Lifelines function (which is a part of the Control Function and Incident Management Team) of the Emergency Coordination Centre (ECC). This section is headed by a designated Lifeline Utility

¹ This is a supporting plan to the National Civil Defence Emergency Management Plan. Reference SP03/12, Published June 2012.

² MBIE advises that some potential measures identified in the strategy (particularly speed limit reductions and allocation rationing) are unlikely to be considered, and the strategy will be revised to reflect that in due course. The term 'rationing', in this plan, means any restriction on general fuel sales with the objectives of improving fuel reliability for priority fuel users and reducing the risks of panic buying. (G Wilson, email 5 June 2018).

³ The National Emergency Sharing Organisation is a committee of oil sector representatives chaired by the Ministry of Business, Innovation & Employment.

Coordinator (LUC). The ECC provides the link between the National Crisis Management Centre (NCCMC) as well as lifeline utilities.

Controllers

Group Controllers (i.e. the Controller for a region) are appointed under section 26 of CDEM Act. In an emergency the Group Controller will direct and coordinate CDEM Group resources, and support the wider response, which includes supporting lifeline utilities.

If a state of national emergency is declared, then the National Controller will coordinate the national response and work with the Tairawhiti CDEM Group Controller.

1.4. Fuel and generator supply to the region

New Zealand relies on imported fuel, either Crude Oil which is refined at Marsden Point or direct imports from Australia, Singapore or South Korea.

The main distribution point for fuels used by road vehicles is from Tauranga via SH2 or via SH2 from Napier. It is distributed by road tanker.

Generators that are not already within the region will have to be transported into the region also via SH2 or, if this road is not available, via sea or air transport, however such means may be lower capacity (air transport) or take longer to transport (sea) than road transport from other parts of the North Island. This is shown schematically in Figure 1.

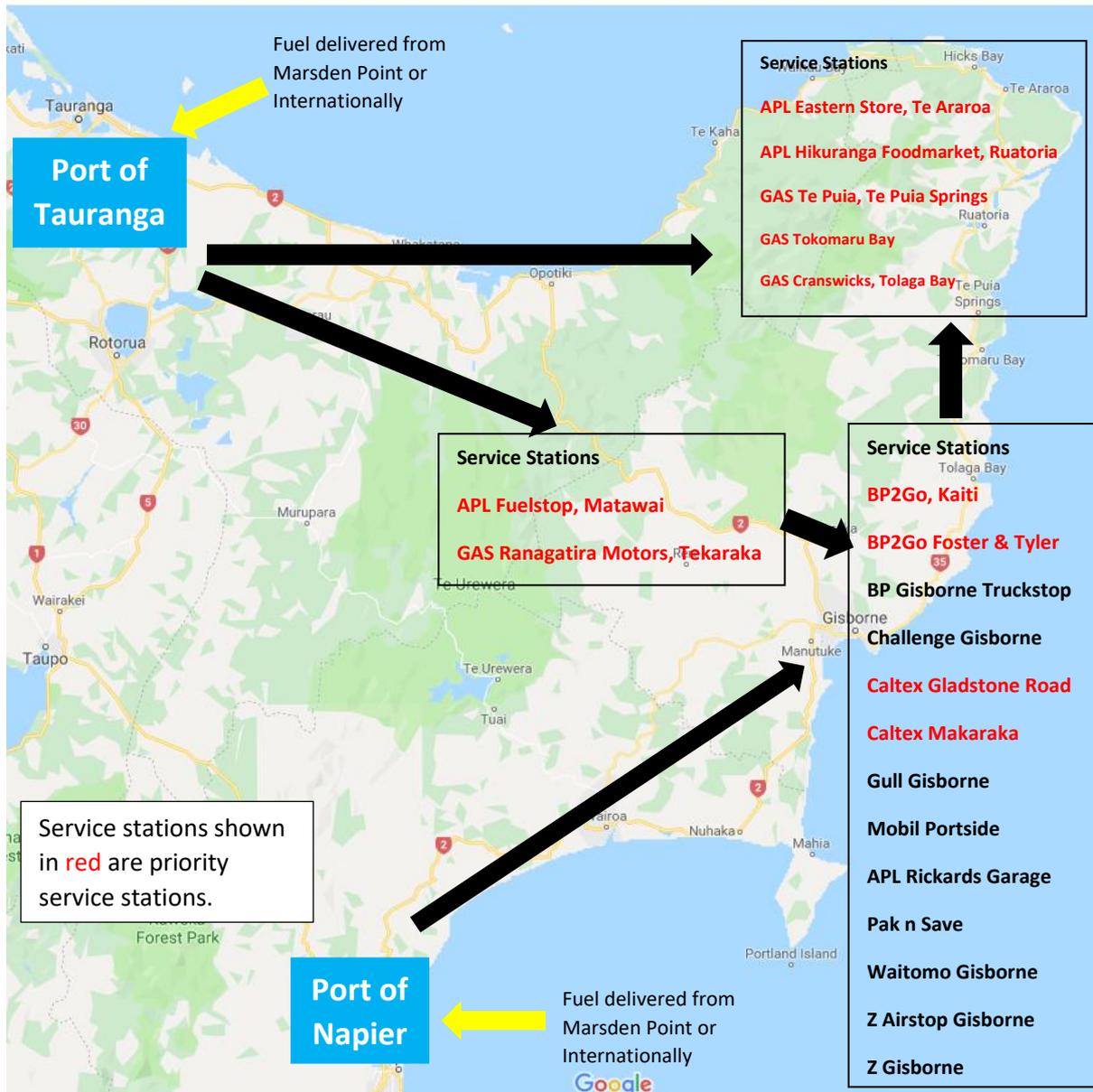


Figure 1: schematic of fuel supply chain and service stations

1.5. Likely fuel shortage impact

Fuel and generators will be a critical component of many responses to an emergency in the Tairāwhiti District, due largely to its geographical location.

If power is disrupted a number of priority facilities (see Appendix 3) will rely on diesel generators to power essential services (e.g. hospital, water pumps, telecommunications). In additional response equipment and vehicles will need fuel to undertake even basic response activity. Additionally, Appendix 8 outlines the impact of fuel (or generator, in the event of a power outage) shortage on key stakeholders/sectors.

Section 1.4 discusses the region’s fuel and generator supply, but distribution within the region is reliant on road transport. A significant earthquake is expected to significantly disrupt road routes in the district and this will make transportation of fuel around the region difficult.

Fuel shortage scenarios

There are a number of scenarios that could disrupt the fuel supply into and around the Tairāwhiti District, these are summarized in Appendix 4. Most fuel supply disruptions can and will be managed within the fuel sector.

A major emergency, such as a large earthquake, may exceed the capacity of the fuel sector to maintain fuel supply in the region. In such an event CDEM would activate to respond to the emergency and support the fuel sector to supply CDEM critical fuel customers and their wider customer base.

National and International disruptions to the fuel supply will be managed at a national level: depending on the event this will be by National Crisis Management Centre as part of a wider emergency response, or Ministry of Business, Innovation and Employment (via National Emergency Sharing Organisation) for a fuel specific response. In such a scenario the Emergency Coordination Centre (ECC) may activate to support the national response.

2. Prioritising fuel and generators to critical customers

2.1. Activation of arrangements

The escalation levels for a fuel emergency are summarised in Table 1.

An emergency may progress from one level to another (for example, a damaged pipeline that takes longer than expected to repair) or move straight to a high level (for example, a sudden, major refinery incident expected to last longer than a few days).

The lead agency shall determine when to de-escalate to lower levels or business-as-usual.

Table 1: Fuel emergency escalation process

Level 1: Minor	Level 2: Moderate	Level 3: Major	Level 4: Severe
Minimal fuel impact anticipated, but may escalate.	Critical customer prioritisation measures invoked.	Additional fuel management measures required.	Only critical customers are supplied at designated supply points.
Fuel companies notify Fuel SCE Chair (at national level) and start planning to implement fuel management measures.	Fuel companies advise of arrangements to ensure continued supply to those customers.	Government support to the fuel sector as required.	

For generators, while Table 1 outlines the fuel escalation framework, generator prioritisation will mirror this framework.

2.2. Critical customers

The National Fuel plan identifies the following organisation categories as CDEM critical fuel customers:

- Emergency services;
- Health care / hospital facilities;
- Welfare agencies;
- CDEM (local authorities);
- Lifeline utilities (including the fuel sector);
- Military;
- Central Government;
- Fast moving consumer goods;
- Known critical contractors for the above.

These critical sectors will also be the same for generator prioritisation. The names of default CDEM critical customers in the Tairāwhiti District are identified in Appendix 1 (fuel) and Appendix 2 (generators). These lists may be updated by the Controller during an emergency.

2.3. Priority fuel retail outlets

Table 2 identifies those service stations that have an emergency response role. These service stations were identified by

- Location within distinct geographical areas;
- Analysis of vulnerability to hazards, particularly liquefaction and tsunami;
- Proximity to key routes;
- Ability to be connected to a generator or other external power source.

Table 2: Service stations with an emergency response role

Name of facility	Physical address of facility
APL Eastern Store	24 Rata Street, Te Araroa
APL Hikurangi Foodmarket	171 Waiomatatani Road, Ruatoria
Te Puia Store	1 Hall Street, Te Puia Springs
Tokomaru Bay Store	28 Waitangi Street, Tokomaru Bay
Cranswicks	59 Cook Street, Tolaga Bay
APL Fuelstop	6527 Matawai Road, Matawai
Rangatira Motors	55-59 Cliff Road, Te Karaka
BP2go, Kaiti	146 Wainui Road, Gisborne
BP2go Foster and Tyler	192 Ormond Road, Gisborne
Caltex Gladstone Road	401 Gladstone Road, Gisborne
Caltex Makaraka	105 Main Road/SH2, Makaraka

Note that there may be stocks of fuel held by contractors. In an event, contact the following organisations to see if they have any stocks that can be used in an emergency:

- Downers
- Eastland Port
- Fulton Hogan
- LeaderBrand

(Use the CDEM contacts list for contact details.)

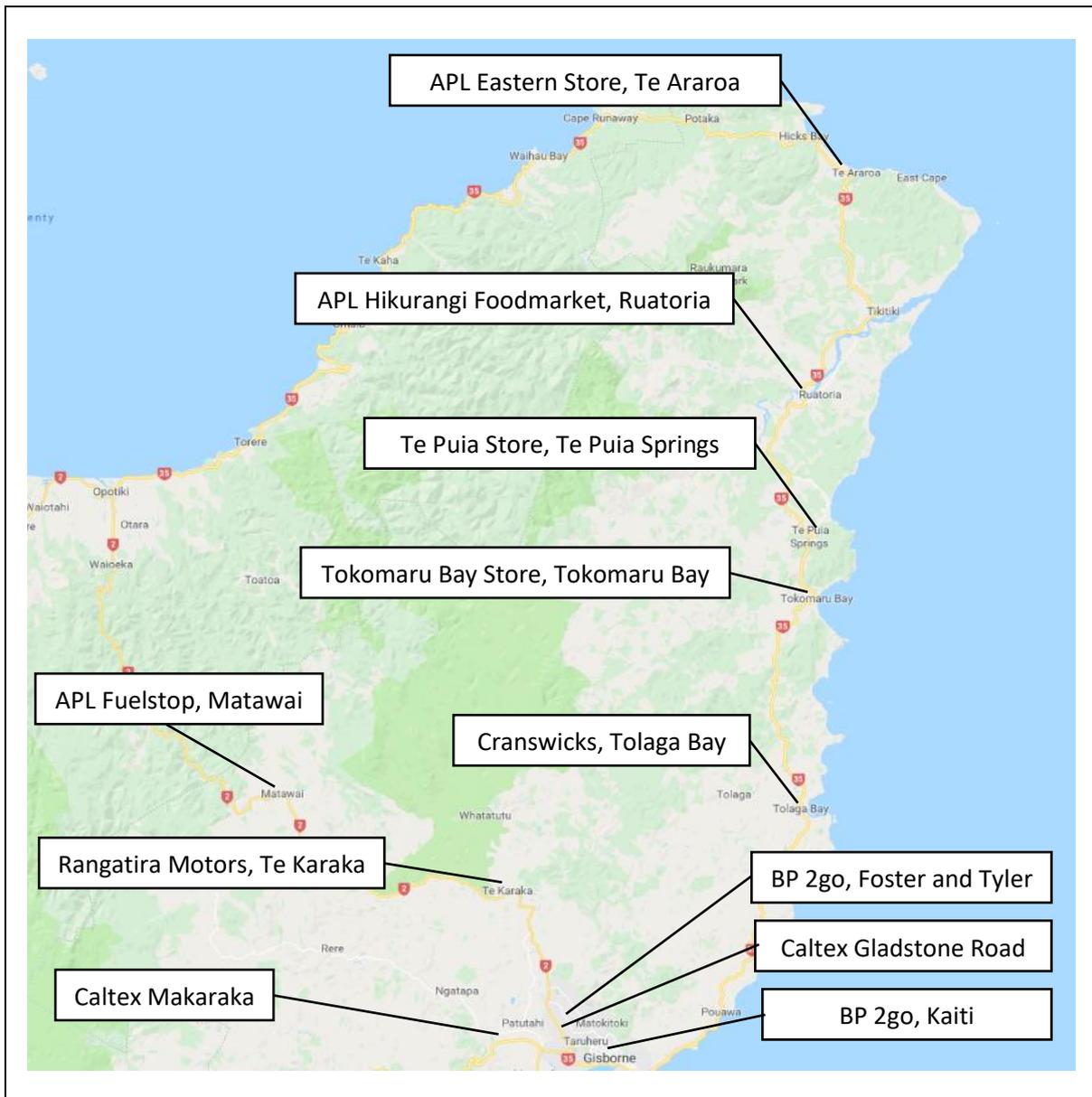


Figure 2: priority service stations

A summary of the hazard assessment and identification of those service stations with an emergency response role is available in Appendix 2.

3. Critical customer roles and requirements

3.1. Critical customer responsibilities

CDEM-Critical customer practicalities

Appendix 1 identifies customers that are a priority for service during and following an emergency for fuel and/or generator use. These customers will be the priority for fuel and generator supply; it will be the responsibility of the Lifelines function to provide this information to the fuel sector.

For vehicles, options to be considered by the fuel companies for supplying CDEM critical fuel customers include:

- Designated service stations only supplying CDEM critical fuel customers;
- Designated lanes within service stations only supplying CDEM critical fuel customers;
- Monitoring stocks at fuel stations and closing the station to all except CDEM critical fuel customers until the station is re-supplied;
- Allowing 'queue jumping' by CDEM critical fuel customers

The process for identifying the method for supplying CDEM critical fuel customer's vehicles will be made in collaboration with the fuel sector.

Other fuels (such as marine and jet fuel) may also have their distribution prioritised.

Payment by CDEM critical fuel customers

CDEM critical fuel customers must continue to pay for fuel and generators, if possible this should be done using service stations which should have the means to process payments.

Responsibilities of CDEM critical fuel customers

CDEM critical fuel and generator customers are responsible for ensuring that their staff and contractors are aware of their CDEM critical fuel and generator customer status in an emergency.

This means that they must ensure that:

- They have their own business continuity arrangements relating to fuel and generator supply (such as priority supply arrangements, own stocks, own generators, etc);
- Their vehicles are clearly identified;
- They have means of payment (and pay for fuel and generators used in an emergency);
- They conserve fuel where possible when operating in an emergency;
- They ensure that non-critical staff and contractors do not unnecessarily take advantage of the priority status during an emergency;
- Any additional contractors are notified to the Lifeline Coordination desk to ensure that these contractors are added to the list of CDEM critical fuel and generator customers.

Health and Safety

In an emergency health and safety remains a key priority. Established health and safety procedures with regard to fuel transport and distribution must be followed. In other words, even in an emergency the business-as-usual health and safety procedures still need to be complied with.

3.2. Impact on critical customer operations

Appendix 4 outlines the requirement for fuel and generators of key sectors including information on fuel storage and generator capacities at key facilities.

3.3. Critical customer fuel and generator requirements

Appendix 4: Critical sites and generators' lists key sites that will require fuel and/or generators in an emergency. This list should be considered by the Controller in a response. This is not an exhaustive list of facilities, but an indicator of key facilities to be considered.

Appendix 5 lists the generator rental companies that are known (as of May 2019) to rent out generators of at least 20KVA capacity. Additionally that Appendix holds an outline of sizings for generators.

Note that the wiring-in of generators must be carried out by a professional electrician. Incorrect wiring can result in health and safety issues, and potentially result in damage to the equipment that is intended to be powered.

3.4. Distribution to generator-using customers

Distribution of fuel to larger generator-using customers (i.e. using greater than 100 litres of fuel per day) should be carried out direct by services such as Mini Tankers, RD Petroleum and Allied Petroleum, as they will have the nozzles to allow direct transfer to diesel tanks.

Distribution to smaller-generator users (that require smaller quantities of fuel) cannot be carried out directly by the above (larger capacity) tankers, so these must be supplied by smaller-capacity means such as using jerrycans etc.

4. Other considerations

4.1. Management of critical resources

The service station list in Appendix 3 shows the service stations that have generators installed or are wired to accept generators. If generators are required to run service stations, in the first instance fuel companies are expected to make arrangements as per their emergency operating procedures.

If the scale of the emergency is such that it exceeds the capacity of fuel companies to respond or requires a coordinated response, then the Lifelines function at the ECC will prioritise the distribution of generators and other resources to priority service stations.

4.2. NCMC support

Rationing and other national-level instruments may need to be used in very large events. If such instruments are needed the Emergency Coordination Centre (ECC) will advise the National Crisis Management Centre.

4.3. Fuel and/or generator supply when road networks are not available

If sections of road are damaged and cannot be accessed, alternative means of supplying critical resources are to be considered. The following are potential means of alternative provision. This section mirrors a similar section in the (draft, as of February 2019) National Civil Defence Emergency Management Fuel Plan.

Barges

Where populations are isolated by road, fuel companies have at times transported fuel on barges where available. This occurred in 2018 to transport fuel to Takaka, however, there are limited barges available in New Zealand and this option will not be viable in areas inaccessible by barge. Fuel products can only be transported on barges that are not carrying any other products at the time of transportation. If barges are required, contact the NCMC for support or, if known, contact barge suppliers direct (i.e. Nautilus Pacific based in Picton). For landing locations, discuss with the GDC Harbourmaster.

Other transport mechanisms

Some other mechanisms for enabling transport of fuel to areas isolated by road or where receiving wharves/terminals are damaged have been identified. These include:

- Air transport – noting that volumes that can be transported by NZDF and other local helicopters are small and only likely to be sufficient to fuel a small number of critical facilities.
- Ship to shore mechanisms, such as pumping directly from ships to truck, pumping from ship to a barge to shore. Require onshore offloading facility and storage and many safety considerations.
- Tanker trucks brought in on roll-on roll-off ships or barges, where there is facility for these vessels to dock, or transport of diesel in isotainers (large barrels held within a 20-foot container frame).
- Rural fuel delivery companies such as Minitankers have fuel-delivery tankers that will be able to drive into locations that larger fuel-delivery tanks will not be able to access.

Potential central government support in providing fuel from outside of the region:

Many of the above mechanisms for providing fuel from outside of the region are likely to require government logistical support, aspects of these are outlined below. The fuel companies are responsible for ensuring continuity of supply. However, in extreme events, such as when road closures have isolated an area or region, the lead agency or MCDEM NCMC/NCC will facilitate logistics support in collaboration with fuel companies to assist fuel supplies in reaching affected regions of country. In such a case, make direct contact with the NCMC, with the first contact between the ECC logistics desk and the NCMC logistics desk. Such measures may include:

- air or overland vehicle transport, however it is important to note that volumes that can be transported by this method are small and only likely to be sufficient to keep the most essential facilities operating (e.g. hospitals)
- a range of support by NZDF, where resources are available, such as NZDF ships, drivers, engineering resources, specialist aviation resources (though there are some planning issues to be resolved as discussed in Section 3.6 such as compatibility of COLL and NZDF shipping specifications)
- assistance with sourcing key international resources including barges and fuel air transport capacity
- relaxation of regulations (for example, allowing night-time fuelling to increase distribution capacity).

4.4. Post-hazard-event inspections of fuel tanks

There are many sensors on fuel tanks at service stations, particularly at those that have been built / refurbished in recent years. For safety reasons these sensors may trip alarms and may shut-off supply of fuel from the tank until inspections have been carried out. This means in events such as earthquakes where significant ground movement has occurred that fuel might not be available from tanks until qualified technicians have inspected the system(s) and confirmed that they are safe to use. Following an event, the fuel companies and service stations will be able to confirm any necessary inspections and advise on timeframes until resumption of services and will also confirm whether they require assistance on transport of key inspection personnel, who may need to travel from outside the region. There are no shortcuts/workarounds to this process.

Appendix 1: Default list of critical customers – fuel

The National Fuel plan identifies the organisation categories for CDEM critical fuel customers, this list has been derived by identifying regional and local organisations that fit under each category. See Section 2.2 for the criteria used in identifying critical customers. This list should be considered to be the default priority list of customers for fuel.

Note – the supply to some of the critical customers below may have to be carried out by a Mini-Tanker (or similar). This would mean that the vehicle filling up at the service station may be a Mini Tanker. Such activity has to be under the instruction of the Controller to ensure that fuel collected this way only goes to the critical customers.

Top-priority customers – default (to be adapted by the Controller in an event, dependant on the needs of the specific event) (for essential functions carried out by these organisations)

Category	Organisation	Emergency role	Comments
Emergency Services	St Johns Ambulance		
	Fire and Emergency NZ		
	NZ Police		
Health care/ hospitals	Hauora Tairāwhiti		Note - below-ground diesel tank will run hospital generators for around 5-7 days. Generators are installed. 500kVA generator, approx.
	Three Rivers Medical Centre		Generator installed
	Ryman Healthcare		Fuel required for existing generator
	Beetham Retirement Village		Fuel required for generator, if installed
	Leighton House		Hard-wired for a generator. Fuel required for generator, if installed.
	Dunblane Retirement Home		No generator installed or wired for.
	Te Wiremu Rest Home		No generator installed or wired for.
	Gordon's Pharmacy, Gisborne		Generator installed. Supplies to vulnerable groups.
	De Lautour Road, Kaiti		Only have as a priority fuel user if a generator is installed (not installed as of June 19)
Welfare agencies	New Zealand Red Cross	Prioritised for fuel only	
	Salvation Army	Prioritised for fuel only	

	Welfare Centres (three default locations)		Each will need a generator and fuel. No generators installed.
	Victim Support	Prioritised for fuel only	
	Citizens Advice Bureau	Prioritised for fuel only	
	SPCA	Prioritised for fuel only	
	Te Poho o Rawiri Marae	Hot plug installed. Generator and fuel required	Welfare Centre for displaced people
	Maori Wardens	Prioritised for fuel only	
Local Authorities	Gisborne District Council	For CDEM, welfare and lifelines (3 waters and roading) functions. See Appendix 4 regarding generator availability and fuel usages.	
Military	New Zealand Army	Prioritised for fuel only	
	Royal New Zealand Navy	Prioritised for fuel only	
	Royal New Zealand Air Force	Prioritised for fuel only	
Lifeline utilities	2degrees	Telecommunications	
	Caltex	Fuel supply	
	Chorus	Telecommunications	Chorus has 'two containers' of generators on stock in the NZ North Island that can be deployed in an emergency.
	Eastland Network	Power supply	
	Eastland Port	Port function	
	First Gas	Gas supply	
	Gisborne Airport	Airport	
	Gull	Fuel supply	
	Kordia	Broadcast services	
	NZME	Radio services	Office at Upper Floor, 127 Gladstone Rd. Generator in place.
	Mobil Oil New Zealand	Fuel supply	
	Spark	Telecommunications	
Tairāwhiti Roads	Road services		

	Vital Limited	VHF radio services	Supplier to St John's Ambulance and critical contractors
	Vodafone	Telecommunications	
	Z Energy	Fuel supply	
Central Government	GNS Science		
	Housing New Zealand		
	Ministry of Business Innovation and Employment	Various functions including building inspection co-ordinator	
	Ministry of Civil Defence & Emergency Management		
	Ministry of Education		
	Ministry for Primary Industries		
	Ministry of Social Development		
	New Zealand Transport Agency		
	Oranga Tamariki		
	Te Puni Kōkiri		
	Work and Income		
Fast moving consumer goods	Progressive Enterprises	For Countdown stores	
	Foodstuffs	For Pak 'n Save, New World and Four Square stores	Pak 'n Save Gisborne has a generator installed.
Critical contractors	Airways New Zealand	Air traffic control	
	Allied Petroleum	Provider of mini-tankers to provide distribution to generators and larger-capacity customers.	
	Broadspectrum	As contractor to 2degrees and Eastland Networks	
	Colvins Communications	As contractor to RT and other comms	TeamTalk and NZME and Radio Ngati Porou (radio) contractor
	Dig Eastland	Contractor supplying earthmoving services	
	Downer NZ	Lead contractor to Tairāwhiti Roads and to TeamTalk.	
	Earthworks Solutions	Contractor supplying earthmoving services	
	Eastech Ltd (Eastland Group owned)	Fault response on electricity lines	

	Electrinet	Contractor for Eastland Networks	
	Fulton Hogan	Lead contractor to GDC for 3 waters services	
	Gisborne Hiabs	Potential transporter of generators	
	Lift4U	Potential transporter of generators	
	Mainfreight	Logistics provider.	
	Mini Tankers	Provider of mini-tankers to provide distribution to generators and larger-capacity customers.	
	Quality Roding and Services Ltd	Contractor supplying earthmoving and roading services	
	RD Petroleum	Provider of mini-tankers to provide distribution to generators and larger-capacity customers.	
	Siteworx	Contractor supplying earthmoving services	
	Stone Transport and Hiab TLtd	Potential transporter of generators	
	Toll	Logistics provider.	
	Weatherall Transport	Contractor to Pak 'n Save	

Second-priority critical customers – default (to be adapted by the Controller in an event)

Category	Organisation	Emergency role	Comments
Healthcare	Ngati Porou Hauora (at Te Puia Springs)	Some basic healthcare functions (not a GP or A&E unit)	Has small generator and around 1 day's supply of fuel on-site with re-stock from the local service station
	Other pharmacies not listed in top-priority customers (above)	Provision of medication	
Commercial	Courier companies (i.e. NZ Couriers)		Some couriers carry out deliveries for just-in-time for medical facilities (and others)

	Food producers / suppliers	In case of prolonged regional isolation, these producers could be the source of food.	
	Restaurant Brand	Cook, provide food	
	McDonalds	Cook, provide food	
Voluntary / welfare groups	Lions/service groups	Distribution network to assist with age care	
	Community bus services	Community transport services	Replaces individual car use

Appendix 2 - Default list of critical customers – generators

See Section 2.2 for the criteria used in identifying critical customers. This list should be considered to be the default priority list of customers for generators.

Top-priority customers – default (to be adapted by the Controller in an event, dependant on the needs of the specific event) (for essential functions carried out by these organisations)

Category	Organisation	Emergency role	Comments
Emergency Services	St Johns Ambulance		
	Fire and Emergency NZ		
	NZ Police		
Health care/ hospitals	Beetham Retirement Village		Fuel required for generator, if installed
	Leighton House		Hard-wired for a generator. Fuel required for generator, if installed.
	Dunblane Retirement Home		No generator installed or wired for.
	Te Wiremu Rest Home		No generator installed or wired for.
	Gordon's Pharmacy, Gisborne		Generator installed. Supplies to vulnerable groups.
	De Lautour Road, Kaiti		Only have as a priority fuel user if a generator is installed (not installed as of June 19)
Welfare agencies	Welfare Centres (three default locations)		Each will need a generator and fuel. No generators installed.
	Te Poho O Rawiri Marae	Hot plug installed. Generator and fuel required	Welfare Centre for displaced people
Local Authorities	Gisborne District Council	For CDEM, welfare and lifelines (3 waters) functions. See Appendix 4 regarding generator availability and fuel usages.	
Lifeline utilities	2degrees	Telecommunications	
	Caltex	Fuel supply	
	Chorus	Telecommunications	Chorus has 'two containers' of generators on stock in the NZ North Island

			that can be deployed in an emergency.
	Eastland Network	Power supply	
	Eastland Port	Port function	
	First Gas	Gas supply	
	Gisborne Airport	Airport	As of June 2019, 5kVA. Within 2019 a 350kVA generator to be installed, to cover fuel, tower, runway lighting and terminal building.
	Gull	Fuel supply	
	Kordia	Broadcast services	
	NZME	Radio services	Office at Upper Floor, 127 Gladstone Rd. Generator in place.
	Mobil Oil New Zealand	Fuel supply	
	Spark	Telecommunications	
	Tairawhiti Roads	Road services	
	Vital Ltd	VHF radio services	Supplier to St John's Ambulance and critical contractors
	Vodafone	Telecommunications	
	Z Energy	Fuel supply	
Central Government	Ministry of Education		
	New Zealand Transport Agency		
Fast moving consumer goods	Progressive Enterprises	For Countdown stores	
	Foodstuffs	For Pak 'n Save, New World and Four Square stores	Pak 'n Save Gisborne has a generator installed.

Appendix 3: Fuel stations vs hazards - prioritisation

Name_of_facility	Address_of_facility	Coastal flooding (NIWA 2015)	Flood hazard (district plan)	Stability alert	Liquefaction zone	Tsunami	Geological hazards (GNS 1997)	Hard-wired for a generator?	Total scores (low score is better)
Mobilcard, APL Eastern Store	24 Rata St, Te Araroa, East Coast	0	0	0	0	2	2	2	6
Mobilcard, APL Hikurangi Foodmarket	171 Waiomatatini Rd, Ruatoria	0	0	0	0	0	3	2	5
GAS Te Puia Store, Te Puia	1 Hall Street, Te Puia Springs	0	0	2	0	0	1	2	5
GAS, Tokomaru Bay	28 Waitangi Street, Tokomaru Bay	1	0	0	0	2	2	2	7
GAS Cranswicks, Tolaga Bay	59 Cook Street, Tolaga Bay	1	0	0	0	2	3	2	8
Mobilcard, APL Fuelstop, Matawai	6527 Matawai Rd, Matawai	0	0	0	0	0	0	2	2
GAS Rangatira Motors, Te Karaka	55-59 Cliff Road, Te Karaka	0	3	0	2	0	3	2	10
BP 2go Kaiti	146 Wainui Rd, Gisborne	0	2	0	1	0	3	0	6
BP 2go Foster and Tyler	192 Ormond Rd, Gisborne	0	0	0	2	0	3	0	5
BP Gisborne Truckstop	Innes Street, Gisborne	0	0	0	3	2	3	2	10
Challenge Gisborne	814 Gladstone Road, Te Hapara, Gisb.	0	0	0	2	0	3	2	7
Caltex Gladstone Road	401 Gladstone Rd, Gisborne	0	0	0	2	0	3	0	5
Caltex Makaraka	105 Main Rd/SH2, Makaraka, Gisb.	0	0	0	3	0	3	0	6
Gull Gisborne	53 Awapuni Road, Gisborne	0	0	0	3	0	2	2	7
Mobil Portside, Gisborne	49 Wainui Rd, Kaiti, Gisborne	1	2	0	2	2	3	2	12
Mobilcard, APL Rickards Garage	736 Wharerata Rd, Manutuke, Gisborne	0	0	0	2	0	3	2	7
Pak 'n Save	Gobden Street, Gisborne	0	0	0	2	0	2	2	6
Waitomo Gisborne	78 Innes Street, Gisborne	0	0	0	3	0	2	2	7
Z Airstop Gisborne	Aerodrome Road, Gisborne	1	3	0	3	0	3	2	12
Z Gisborne	300 Gladstone Road, Gisborne	0	0	0	2	0	3	2	7
Z Gisborne Truck Stop	Cnr Solander Rd & Parkinson St, Gisb.	0	0	0	3	2	3	2	10
		KEY (next page)							

See prioritisation criteria table below for information sources for the above scorings.	0 = outside zone	0 = outside zone	0 = outside zone	0 = outside zone	0 = outside zone	0 = outside zone	0 = wired for generator	0-5 = lower hazard profile
	1=within LIM alert zone	2=urban stormwater flood hazard area	2=site caution	1=low	2=within evacuation zone	1=low	2=not wired	6-10= moderate hazard profile
Shaded service stations are prioritised services stations. See overleaf for prioritisation criteria.		3= area liable to flooding		2=moderate		2=moderate		10+= higher hazard profile
				3=high		3=high		

Service station prioritisation criteria:

Service stations were prioritised using the following criteria:

Prioritisation criteria	Comments
Geographical spread	Service stations outside of Gisborne City are generally spaced further apart, often serving wider geographical areas or locations that have a higher potential to be isolated in some hazard events. All service stations outside of Gisborne City were therefore prioritised.
Service stations wired for generators	Service stations that were wired (according to information gathered in early 2019) received a lower hazard score in the prioritisation table (above) and therefore received a higher prioritisation.
Hazard profile	The hazard profiles given in the above table were taken from matching the service station location against the hazards shown on the Gisborne District Council 'Tairāwhiti Maps' GIS viewer, available on 15 th March 2019 at https://maps.gdc.govt.nz/H5V2_10/

Appendix 4: Critical sites and generators

The following is an outline of some critical sites and their fuel and generator status, as of March 2019:

Sector	Organisation	Name of facility	Address	Number of people affected by an outage of this facility	Electricity requirement for facility to run	Alternate power supply (i.e. generator) available?	Fuel requirement (litres / day) (only diesel quantities noted)	Comments
Transport	Eastland Group	Gisborne Airport	Aerodrome Road, Gisborne	50,000+	High	Generator	1,000	As of June 2019, 5kVA which powers control tower functions. Within 2019 a 350kVA generator to be installed, to cover fuel, tower, runway lighting and terminal building.
Transport	Eastland Group	Port		50,000+		Generator (50kVA)		
Energy	Eastland Group	Mobile	Mobile			Eastland Network truck mounted		Mobile truck-mounted generator
Emergency service	Gisborne District Council	Gisborne CDEM EOC	15 Fitzherbert St, Gisborne	50,000+	High	Generator	200	
Emergency service	NZ Police	Gisborne Police Station	Cnr Customhouse & Gladstone Rd	50,000+	High	Generator (1000KVA)	1,500	Generator cannot support intake

Sector	Organisation	Name of facility	Address	Number of people affected by an outage of this facility	Electricity requirement for facility to run	Alternate power supply (i.e. generator) available?	Fuel requirement (litres / day) (only diesel quantities noted)	Comments
Emergency service	NZ Police	Ruatoria Police Station	Waiomatatini Road, Ruatoria	10,000-50,000	High	No	120	
Water	Gisborne District Council	Waipaoa Water Treatment Plant	429A Bushmere Road, Gisb.	10,000-50,000	High	Partial (1MVA, 200kVA)		
Water	Gisborne District Council	Wairoa pump station			High	200kVA generator		
Water	Gisborne District Council	Hospital Hill Reservoir	Hillview Terrace, Gisb.	10,000-50,000	High	Partial		Loss of power will impact telemetry and remote opening and closing of valves
Water	Gisborne District Council	Knob Hill Reservoir	Endcliffe Road, Gisb.	10,000-50,000	Medium	No		
Water	Gisborne District Council	Taumata Reservoir	Back Ormond Road, Gisb.	10,000-50,000	Low	No		Reservoir is filled by use of a diesel pump
Water	Gisborne District Council	Makaraka Booster Pump Station	Main Road, Makaraka	10,000-50,000	Medium	No		Supply likely to be provided by gravity, so unlikely to require pumps/generator.

Sector	Organisation	Name of facility	Address	Number of people affected by an outage of this facility	Electricity requirement for facility to run	Alternate power supply (i.e. generator) available?	Fuel requirement (litres / day) (only diesel quantities noted)	Comments
Water	Gisborne District Council	Damline Booster Pump Station	Waingake Water Works, Tarewa Road	10,000-50,000	High	No		Supply likely to be provided by gravity, so unlikely to require pumps/generator.
Water	Gisborne District Council	Fairview Booster Pump Station	Waingake Water Works, Tarewa Road	10,000-50,000	High	No		
Water	Gisborne District Council	Ormond Road Booster Pump Station	Ormond Road, Gisb.	10,000-50,000	High	No		
Telco	TeamTalk and Radio NZ	Wheatstone Road		10,000-50,000	High	No		Ambulance radio repeater Broadcast of RNZ FM services
Fuel	Pak 'n Save	Pak 'n Save fuel station	Cobden Street	10,000-50,000	High	No generator at fuel station. Generator available at store (approx. 1000 kVA).		Fuel in station will be used to power Pak 'n Save generator

Sector	Organisation	Name of facility	Address	Number of people affected by an outage of this facility	Electricity requirement for facility to run	Alternate power supply (i.e. generator) available?	Fuel requirement (litres / day) (only diesel quantities noted)	Comments
Radio	NZME	Office and broadcast location	Upper Floor, 127 Gladstone Rd, Gisborne	50,000+	High	Generator.	30 litres/day	Generator can run up to 3 days without top-up. (Generator tank capacity = 100 litres)
Radio	Radio Ngati Porou	Office and broadcast location	161 Waiomatatini Rd, Ruatoria	50,000+	High	No		
Radio	Radio NZ and Media Works	Broadcast location	60 Lloyd George Rd, Waunui, Gisborne	50,000+	High	Generator	170 litres/day	Tank holds 1,350 litres, so will last 8 days
Hospitality	Tolaga Bay Holiday Park		167 Wharf Rd, Tolaga Bay			Generator	65kVA	
Hospitality	Emerald Hotel		13 Gladstone Rd, Gisborne			Generator	300kW	
Accommodation	Lottin Point Motel		365 Lottin Point Rd, Hicks Bay			Generator	30kVA	
Other	Mahia Rocket Labs					Generator	500kVA	

Appendix 5: generator suppliers and outline sizings

Known generator suppliers (with generators of at least 20KVA and 100KVA sizes), as of May 2019 serving the Tairāwhiti District are:

Generator hire company	Location(s)	Phone
aggreko	56 Market Place, Tauranga 3118	(07) 574 2950 0800 950 950
Generator Rental Services (GRS)	7 Porutu Place, Tauriko, Tauranga 1217 Omaha Rd, Hastings 4175	(07) 929 7174 0800 301 301 021 544 487
Hirepool	4 Pyes Pa Rd, Greerton, Tauranga 3112	(07) 543 0742
Kennards	52 Borrowes St, Tauranga	(07) 571 6542

As a general indication, the following generator sizes will indicatively power the following sizes of facilities:

A 100KVA generator will power a service station

A 20KVA generator will power a modest medical centre

Note that in addition to providing the generator to a location, the wiring-in of a generator must also be arranged. In the cases that the facility has already been hard-wired, this should be a relatively quick/simple action.

Note also that as a general assumption, it could be expected that the above hire companies/locations will have less than 10 each of the above sizes of generators available for hire at any one time. Availability will therefore be extremely limited and only some facilities may be prioritised for provision of services.

Appendix 6: Fuel shortage scenarios

This appendix provides a summary of possible fuel disruptions that could affect fuel supply to the Tairāwhiti District. It shows whether the response would be handled at a local, regional or national level and whether the response would be part of a wider emergency response or fuel specific. Highlighted fields are the scenarios that this plan focuses on.

Scenario	Response Level	Response Type	Comment
Access to a local area closed or restricted for significant period of time (e.g. large landslip affecting access to a township)	Local	Wider emergency response	Fuel supply to local area would need to be considered as part of response to event.
Access to part of the region closed or restricted (e.g. significant closure of SH2 for a significant period 2+ days)	Regional	Wider emergency response	Fuel would have to be re-routed or supplied from outside of region
Major event effecting not only Tauranga depots and wider infrastructure including road access into region and around region (e.g. earthquake)	Regional (or potentially National)	Wider emergency response	Fuel distribution likely to be hampered by damage to wharves, pipelines, roads and rail limiting ability to distribute fuel. Damage to fuel infrastructure and service stations.
Major long-term disruptions to power supply to the Tairāwhiti District (e.g. loss of a key substation or multiple transmission pylons)	Regional (or potentially National)	Wider emergency response	Fuel infra-structure is dependent on power, but there would be an increased demand for fuel (especially diesel) to provide alternative power.
Damage to, or loss of, part or all of the coastal tanker fleet	National	Fuel specific	Impact on fuel distribution outside Auckland which relies on coastal fleet, direct imported supplies may be diverted to other port. Such a response would be led at National level, but activation of aspects of this plan may be necessary.

Scenario	Response Level	Response Type	Comment
Damage to, or loss of, Refinery to Auckland Pipeline or Wiri Oil Depot	National	Fuel specific	Impact on Tairāwhiti District (and rest of country as resources, such as tanker fleet) diverted to supply Auckland. Such a response would be led at National level, but activation of aspects of this plan may be necessary.
Damage to, or loss of, Marsden Point Oil Refinery (e.g. fire).	National	Fuel specific	Impact on whole country, while arrangements are made to import sufficient supplies from overseas. Such a response would be led at National level, but activation of aspects of this plan may be necessary.
Major event effecting refinery but also wider infrastructure (e.g. tsunami)	National/Regional	Wider emergency response	Impact on whole country, while arrangements are made to import sufficient supplies from overseas. Note in some cases (e.g. tsunami) may be an international impact. Such a response would be led at National level, but activation of aspects of this plan may be necessary.
Disruption to international fuel supply	National	Fuel specific (initially)	International crisis – impact would not only be to New Zealand but the whole world. Such a response would be led at National level, but activation of aspects of this plan may be necessary.

Appendix 7: relevant clauses from CDEM Act 2002

The following are the relevant clauses relating to fuel emergencies from the CDEM Act 2002

CDEM Act clause	Notes
CDEM Act 2002 s60(a): Requires lifeline utilities to ensure that they are able to function to the fullest possible extent, even though this may be at a reduced level, during and after an emergency.	Oil companies and associated distribution companies are defined as ‘lifeline utilities’ under the CDEM Act 2002, Schedule 1, Part B (7): <i>“An entity that produces, processes, or distributes to retail outlets or bulk customers any petroleum products used as an energy source or an essential lubricant or additive for motors for machinery.”</i> In this document, emergency has the same meaning as in 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.
CDEM Act 2002 s85(1)(e): A CDEM Group may provide for the conservation and supply of food, fuel and other essential supplies.	A state of emergency is required to be in force in the area.
CDEM Act 2002 s90: Provides requisitioning powers of materials, equipment and supplies where considered necessary for the preservation of human life.	A state of emergency is required to be in force in the area. Requisitioning powers are seen as a tool of last resort where the fuel sector fails to implement lead agency instructions and/or the measures in this Plan are inadequate to secure supply to critical customers.
CDEM Act 2002 s91: Provides powers for a Controller or Police to direct a person to stop an activity that may substantially contribute to an emergency; and to request a person to take action to limit the extent of the emergency.	This provides a legal basis for fuel companies to interrupt their commercial contracts allowing for greater allocations to critical customers.

Appendix 8: Critical functions of key sectors

The following is an overview of the requirements for fuel and generators (in a power outage) of key sectors. See Appendix 4 for information on fuel storage and generator capacities at key facilities.

Sector	Specific function	Impact of loss of fuel or power
Emergency services	Fire and Emergency NZ, NZ Police, St John's Ambulance	Fuel required for responding vehicles and (for Police) for maintaining Police Station activities. Loss of fuel will impact abilities to respond.
Health care/ hospitals	Hospitals	Critical healthcare
	Medical centres	Healthcare
	Pharmacies	Pharmaceuticals, some of which must be refrigerated.
Welfare	Welfare of the communities	In some emergencies, this function will include food provision and shelter to vulnerable communities.
Local Authorities	CDEM response	Co-ordination of emergency responses (see lifelines section for water and roading functions).
Military	Emergency logistics and other response support	Loss of fuel will impact abilities to respond.
Lifeline utilities	Energy (electricity, fuel, gas)	Loss of fuel or generators will lead to lack of ability to respond to emergency, or lack of ability to supply services.
	Telecommunications	Loss of fuel for existing generators will impact ability of telecommunications networks to function, affecting cell phones, landlines, internet and broadcast (TV and radio).
	Transport	Loss of fuel will impact Tairāwhiti Road's ability to respond to any road outages.
	Water(s)	Loss of fuel or power will mean that once potable water reservoirs are empty (likely to take up to 24 hours), reticulated water supply will stop. Loss of power to stormwater and wastewater facilities will impact the ability to pump or treat stormwater or wastewater.
Central Government	Various welfare co-ordination, emergency response and central functions.	Loss of fuel will impact abilities to co-ordinate welfare functions, including shelter and support. Loss of fuel to MBIE may impact any necessary building inspections post-seismic event.
Fast moving consumer goods	Supermarkets and retail stores	Loss of fuel will impact abilities to supply food and stocks.
Critical contractors	Support to the lifelines and other critical organisations noted above.	See the lifelines and other critical organisations above.



Tairāwhiti CDEM
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