

Croydon Resilience Forum

PREPARING FOR EMERGENCIES



Utility Supply Disruption Response Guidance

V2.0, October 2019

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1 Ownership and Version Control

Document Information						
Version	1.0	2.0				
Issue date	Nov 16	Oct 19				
Current version approved by	Croydon Resilience Forum					
Next review date	October 2022, or sooner if activated.	Local Authority Minimum Standards Reference	Part 1: LLAG Operations; Supports part 2: Plans & Capabilities			
Title	Utility Supply Disruption Response Guidance					
Description / Purpose	To highlight how Croydon Resilience Forum will respond to a utility supply disruption within the borough					
Author(s)	Resilience Officer, Croydon Council Corporate Resilience Team, Croydon Council					
Target audience	Croydon Resilience Forum & Partners					
Distribution list	Croydon Resilience Forum A version of this plan will also be available to the public on the Council website.					
Superseded documents	N/A					
Key related documents	<ul style="list-style-type: none"> London Water Supply Disruption Plan (December 2017) Hub Distribution Models: A Practical Guide for Emergency Planners (May 2015) Utility Disruptions that Impact on Local Authorities: Standard Operating Procedures for a Collaborative Response (July 2016) London Power Supply Disruption Plan (April 2018) London Emergency Services Liaison Panel Major Incident Procedures (LESLP) London Strategic Coordination Protocol 					
Responsible Officer	Chair of CRF	Contact details	<u>This information has been redacted.</u>			
Acknowledgements	Croydon Council, Royal Borough of Greenwich					
Document Revision Record						
Version	Description of amendment	Reason for change	Author	Date		
1.0	New procedure	To reflect regional guidance	Resilience Officer	November 2016		
2.0	Full document review	In line with 3 year review schedule	Resilience Officer	October 2019		

Record of Exercises, Testing or Activations			
Proposed Exercise / Training	Type	What will be tested/ Covered	Validation
Sub Regional Resilience Forum (May 2011)	Workshop	Water disruption	Post event report
Autumn 2013 Sub Regional Resilience Forum	Workshop	Roles and responsibilities	Post event report
February 2014	Possible activation	Due to the risk of Kenley Water Treatment Works flooding, there was approx. 10,000 people at risk of water supply disruption	Post incident report / S19 report
Exercise Amanzi (December 2015)	Table top Exercise	Response to water disruption incident	Post exercise report
Sub-Regional Resilience Forum (SRRF) Workshop (June 2018)	Table top Exercise	Response to power disruption incident	Post exercise report
Exercise Imperium (February 2019)	Table top exercise	Response to power disruption incident	Post exercise report

2 Critical Information

How to use this plan quickly	<ul style="list-style-type: none"> Go to page 8 for the Activation procedure Go to page 9 for details on the Information Gathering by Croydon Council Resilience Team Go to page 12 for the Communication & Coordination arrangements Go to page 15 for an Electricity Supply Disruption Go to page 18 for a Gas Supply Disruption Go to page 18 for a Water Supply Disruption (Loss of supply) Go to page 24 for a Water Supply Disruption (Contamination) Go to page 29 for the Annex E: Template to Calculate Resources needed for Water Distribution
Principles	<ul style="list-style-type: none"> Every emergency is different, and it is important to be flexible to ensure the most appropriate and effective response. Respect for the individual and their needs, and for the diversity of communities is key to ensuring the best possible care for affected people. The response to any emergency is conducted in partnership. A multi-agency approach is crucial and sharing of information between partners is essential. The arrangements in this plan are complementary to the major incident procedures for London set out in the LESLP Major Incident Procedures Manual, and the London Strategic Coordination Protocol.

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4 Introduction

4.1 Aim

This document aims to highlight how the agencies represented in the Croydon Resilience Forum will respond to a utility supply disruption within the London Borough of Croydon.

4.2 Objectives

- Identify the circumstances that a utility company would notify Croydon Council;
- Illustrate how the Croydon Resilience Forum will be activated by Croydon Council;
- Outline the considerations for the response to water, electricity and gas disruption;
- Describe how the Croydon Resilience Forum will communicate and coordinate to effectively respond.

4.3 Scope

This guidance document defines the response to utility supply disruption within the borough; it does not aim to state how Croydon emergency responders will function in a pan-London or national utility supply disruption. It also does not aim to define how to respond during a disruption to telecoms.

4.4 Background and context

A significant disruption to the supply of electricity, gas or water within the Croydon area (or even a wider level of disruption) could have a significant impact on local residents and businesses, with an equivalent impact on emergency responders.

Disruption to these supplies can be caused by a number of circumstances, ranging from accidental damage during building works, fractures of pipework due to infrastructure failures, national supply problems, through to deliberate damage. Some other examples of what could cause utility supply disruption include drought, storms, flooding, and contamination.

The London Risk Register describes a number of utility supply disruption risks which are rated between medium and very high risk. These are described in the London Risk Register and the Croydon Risk Register, which can both be found on Resilience Direct, and outlined below:

<u>Ref</u>	<u>Outcome description</u>	<u>Likelihood</u>	<u>Impact</u>	<u>Controls in place</u>
H38 HIGH	Gas Supply Infrastructure A technical failure or accident in an upstream oil/gas facility, gas import pipeline terminal, or Liquefied Natural Gas (LNG) import reception facility leading to disruption in UK gas supplies.	2	3	<ul style="list-style-type: none"> • National Emergency Plan for Fuel • London Resilience Partnership Plans
H39 MED	Water Supply Infrastructure Failure of water infrastructure or loss of drinking water caused by the complete and relatively sudden loss of piped water supply or the degradation of the piped supply such that it is unfit for human	2	3	<ul style="list-style-type: none"> • Water Industry Act 1991 • Security and Emergency Measures Direction 1998

	consumption even after boiling. The RWCS assumes up to 350,000 people affected for between 24 hours and two weeks			<ul style="list-style-type: none"> Water companies mutual aid arrangements in place London Resilience Partnership Plans
H45 VERY HIGH	<p>Regional Electricity Transmission</p> <p>A significant failure of the electricity network across one or more regions of Great Britain affecting large numbers of customers (approximately 1 million) for up to 24 hours or up to 72 hours for some people.</p>	3	4	<ul style="list-style-type: none"> Testing and maintenance regime. London Power Supply Disruption Framework

Gas

The distribution of gas within the borough is the responsibility of SGN, taking their supply from the National Grid. Although individual residents and organisations purchase gas via a number of companies, SGN is responsible for the restoration of gas supplies locally. The coverage area can be seen in **Figure 1**.

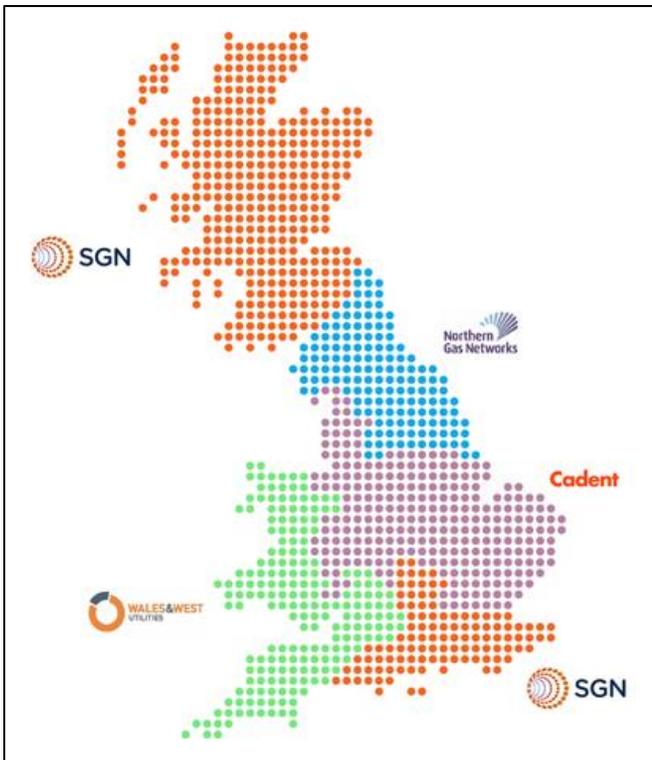


FIGURE 1 – THE UK SPLIT OF GAS DISTRIBUTORS.

Water

The distribution of drinking water within the borough is the responsibility of Thames Water and SES Water. Thames Water is also responsible for all wastewater services. The split in area responsibility can be seen in **Figure 2**.

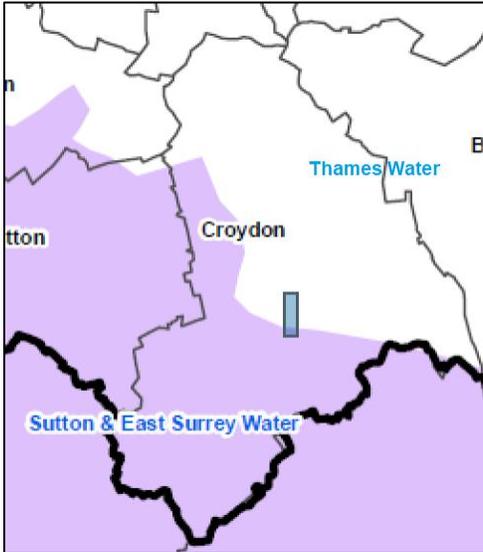


FIGURE 2 – CROYDON'S WATER SUPPLY PROVIDER

4.4.1 Electricity

The distribution of power within the borough is the responsibility of UK Power Networks (UKPN), taking their supply from the National Grid. Although individual residents and organisations purchase electricity via a number of companies, UKPN is responsible for the restoration of electricity supplies locally. The coverage area can be seen in **Figure 3**.

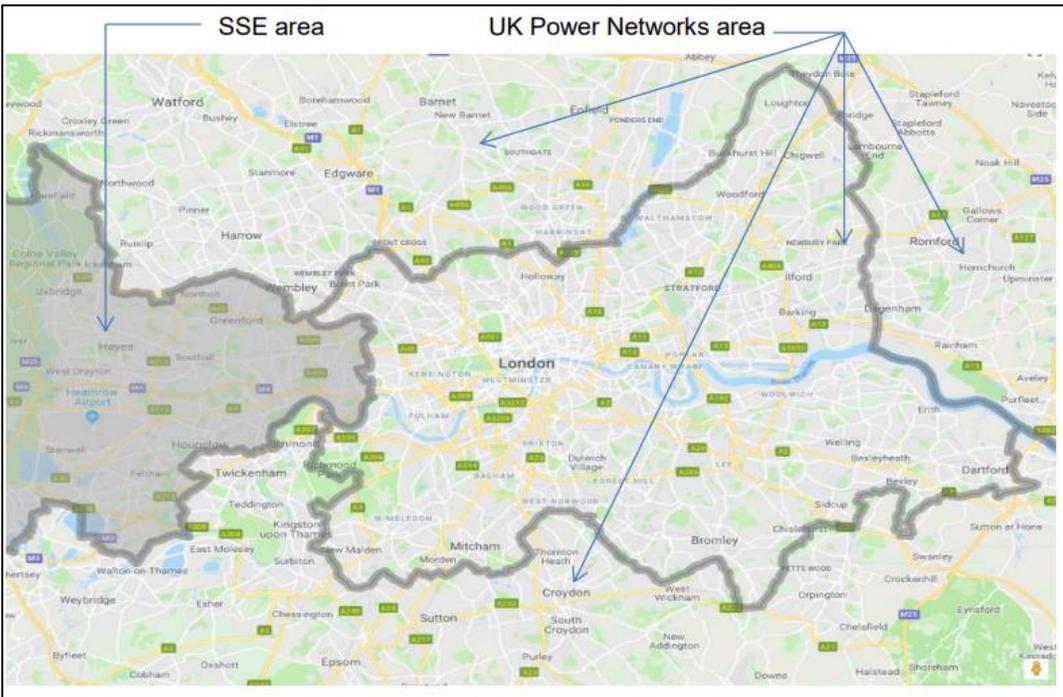
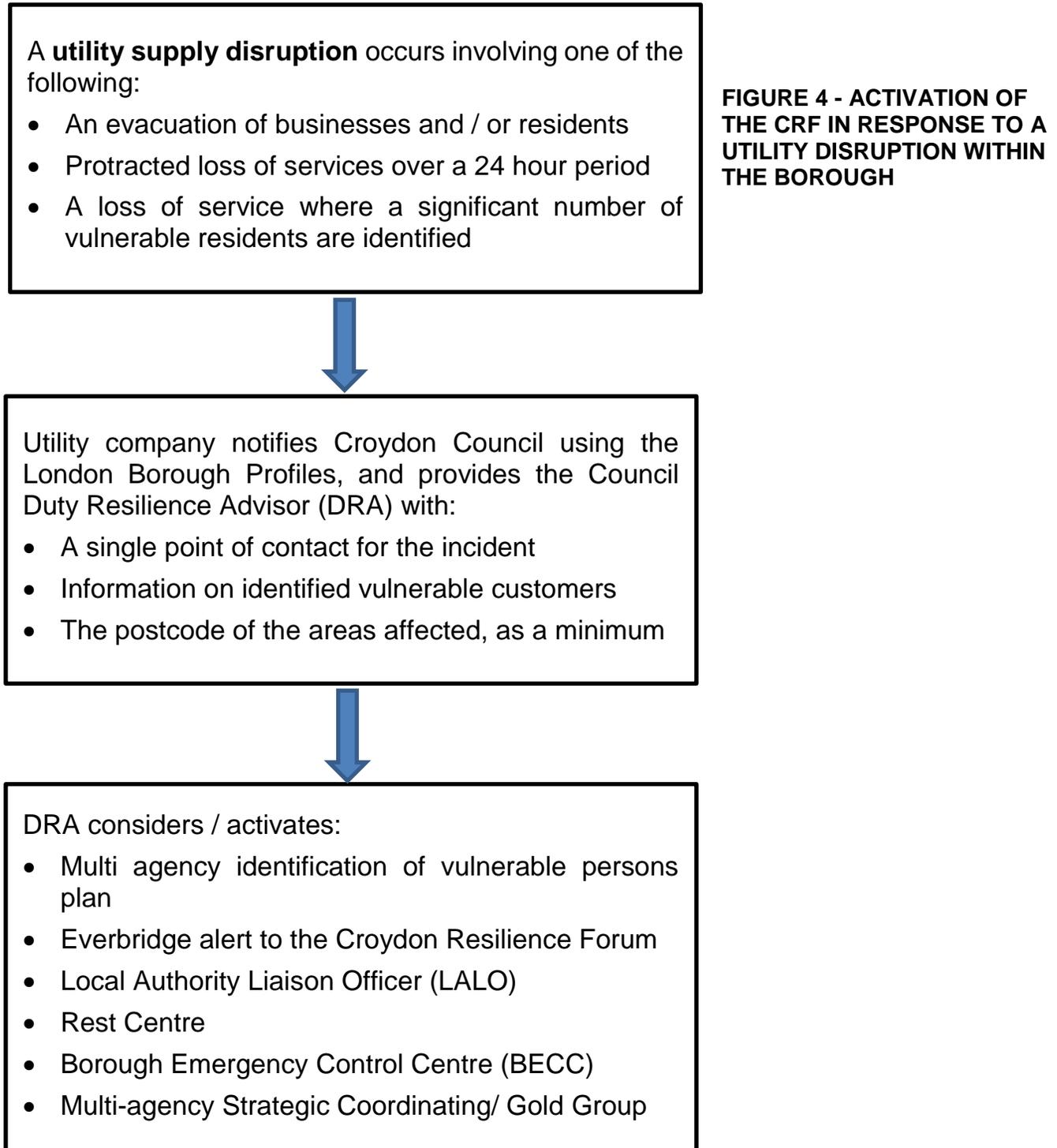


FIGURE 3 – LONDON'S ELECTRICITY DISTRIBUTORS

5 Activation

The Utilities Sector has agreed to provide a minimum standard for notification of London Local Authorities during a disruption affecting any London Borough. **Figure 4** displays how the resilience forum will be activated by the utility company, via the Croydon Council Duty Resilience Advisor (DRA).



6 Roles and Responsibilities

The below outlines the generic responsibilities for organisations in any utility supply disruption incident; the different agencies responding to a utility supply disruption will carry out their duties as stated in the LESLP Procedure Manual (available on Resilience Direct).

Agency responsibilities in the specific scenarios (Loss of gas, electricity or water) are outlined in section 8, 9 and 10.

6.1 Croydon Council Roles and Responsibilities

As stated in *London Utility Disruptions that Impact on Local Authorities: Standard Operating Procedures for a Collaborative Response* (available on Resilience Direct), local authorities may provide the following services if required during a utility supply disruption, with support from partners where necessary:

- Liaison, to ensure the response is coordinated and communicated with relevant Council stakeholders and contracted services such as highways and social care contractors;
- Assistance with the identification of, and support to, vulnerable residents in the area;
- Supporting the evacuation of residents including setting up rest centres, if required;
- Supporting Utilities lead communication to the affected residents;
- Liaison with other boroughs and the London Local Authority Coordination Centre (LLACC) if the incident affects or has the potential to affect neighbouring Local Authorities;
- Provide advice and support to residents and local businesses through the recovery phase;
- Procedure in place to share Emergency Works Notices with relevant stakeholders; and
- Activation of the Borough Emergency Control Centre (BECC) to enhance multi-agency coordination.

6.1.1 Information Gathering by Croydon Council Resilience Team

In the event of a utility supply disruption within the borough, information needs to be gathered to understand the extent of the supply disruption and the impact on local services, residents, businesses and other organisations and activities.

This information will be collated by the DRA or BECC, if activated, and shared with partners in meetings/teleconferences or via email. This information may then be used to determine what response is required to mitigate the impacts of the supply disruption.

Information may be obtained from:

- Liaison at scene with utility company and its contractors (by the LALO);
- Information provided by local residents to the Croydon Council Contact Centre and other departments;
- Partner organisations that have activities affected by the supply disruption;
- Direct information from the utility company.

The information that is needed includes:

- The extent of the supply disruption and consequent incidents (e.g. flooding from a burst water main):
 - Information from utility companies is initially based on calls from the public, until engineers with the appropriate monitoring equipment are on site and operational (potentially some hours after the cause of the supply failure is notified);
 - Therefore, the data provided on the utility company website will need to be checked by contacting organisations and premises within the reportedly affected area (the website

data normally only gives the first part of the post code area affected, although their contact centre will be able to provide the road names from which residents have called).

- The likely timescales for supply restoration;
- Potential barriers to that timescale being achieved;
- Vulnerable premises (e.g. schools and nursing homes) and individuals (e.g. requiring specialist equipment made inoperable by the supply disruption) within the affected area; using the affected post codes and road names identified by the utility company and by other research;
- Responding organisations, and contact details at the scene.

6.2 Identification of Vulnerable People

A key interest of both Local Authorities and the Utilities Sector is the identification and provision of support to residents, especially vulnerable residents that are affected by a utility supply disruption. Where a utility company has identified a resident who requires specialist support, this will be relayed to the Local Authority at the earliest opportunity to ensure they receive the necessary services during the period of the disruption.

Croydon's Multi-Agency Identification of Vulnerable Person Plan (September 2018) is available on Resilience Direct and contains the arrangements for emergency responders to identify the vulnerable affected by an emergency. This includes engagement and collaboration with local health providers.

6.3 Business Continuity

Disruption to utilities can impact all stakeholders equally, and responders need to consider their own internal business continuity arrangements whilst also responding on a multi-agency level to any additional incidents within the borough.

7 Communication & Coordination

7.1 Warning & Informing

Communications will be led by the utility company affected and supported by all other agencies involved.

The CRF will need to spread consistent messages, and so agencies should follow the lead of the utility company to whom CRF communication partners can collaborate with.

Existing mechanisms to communicate with the public:

- Social media: Twitter, Facebook, Instagram
- Email through “My Account” (Croydon Council public platform to access council services)
- Recorded message on a dedicated call line (utility company or Croydon Council)
- Faith and community groups
- Local media
- Ward Councillors

7.2 Everbridge

Croydon Council Resilience Team will use their emergency mass notification system, Everbridge, as a method of activation to alert the registered CRF members to the utility supply disruption. The message will be sent via the delivery method registered by the individual on the system (email and/or SMS) and will require a response from a choice of options so that the Resilience Team are aware of who has acknowledged the message and is aware of the incident. If requiring activation, this guidance will also be attached to the email notification so partners are reminded of their responsibilities.

7.3 Priority Services Schemes

Utility companies operate a number of schemes that may be used by individuals and sites (e.g. nursing homes) that may be particularly vulnerable in the event of a supply disruption. Utility companies can then provide additional assistance to these people, liaising with the local authority to provide a consistent response.

It is important to remember that although these schemes are useful, they provide an opt-in service only and so do not cover those individuals who are made vulnerable because of the disruption. So, in a prolonged incident in particular, it is important that the Identification of Vulnerable Persons process is used.

7.3.1 Electricity

UK Power Networks operate a Priority Service Register for customers with special needs during power cuts, including those who:

- rely on medical equipment
- have refrigerated medicines
- have a serious or chronic illness
- have a disability
- is living with or someone they care for is living with dementia
- are of pensionable age
- have children under the age of 5 in their household
- need extra support for a short time period (e.g. recovering from medical treatment)

Details can be found on the [UK Power Networks website](#).

7.3.2 Gas

Individual gas suppliers: Under the terms of their licence, gas suppliers must keep a register of, and offer special help to, its customers who are:

- are of pensionable age
- are disabled or chronically sick
- have a long-term medical condition
- have a hearing or visual impairment or additional communication needs
- are in a vulnerable situation.

Each energy supplier (e.g. British Gas, EDF, and N Power, etc.) maintains its own register, so will need contacting individually for registration. More information can be found on the [Ofgem website](#).

Network operators: SGN maintains a register for customers who need priority support in a gas emergency, designed to support people:

- who are over 65
- have children under five or are pregnant
- have long-term physical or mental health conditions
- have a disability
- have additional language or communication needs

Details can be found on the [SGN website](#).

7.3.3 Water

Thames Water operates an “Extra Care Services” scheme. Details may be found on the [Thames Water website](#). Customers who can register include those who:

- are eligible for a pension
- have restricted mobility or a physical disability
- have a chronic or serious illness
- need a consistent supply of water for a medical condition or equipment (such as dialysis or skin conditions)
- in need of foreign language or further communication support (such as dyslexia)
- have problems making decisions that affect your daily life (such as dementia)
- are registered blind or partially sighted
- are deaf or hard of hearing
- are living with a mental health condition
- are experiencing temporary life changes
- are a family with young children under 5

Thames Water also have a [Sensitive Sites scheme](#) for registered premises, who they will directly support during a disruption:

- hospitals
- prisons
- educational establishments (including special needs schools)
- farms and abattoirs (with commercial livestock)
- vulnerable domestic customers sharing a supply with a non-household customer premises
- sole traders who are sick, elderly, or disabled
- care homes and nursing homes, where eligible.

SES Water run a ‘Helping Hand Scheme’ for those who suffer from ill health, have a disability or have young children living with them. Details can be found on the [SES Water website](#).

7.4 Restriction of use notices (Water contamination)

In the event of a water contamination, which could be a biological (e.g. cryptosporidium) or chemical contaminant, a restriction of use notice may be imposed. This notice will advise customers to either boil the water before use or not use the water at all.

- **For relatively small scale incidents**, the notices are hand delivered as it is the quickest way to get them to the customers affected whilst maintaining control of the scope and distribution, as it is very important that customers not affected do not get the ‘wrong’ message with regard to their water.
- **For larger scale incidents**, the water provider are likely to use the Royal Mail in conjunction text messaging, media, and social media, and partner organisations might be asked to support by communicating on specific messages.

These restriction of use notices come under three broad headings:

- Do not use the piped water supply
- Use tap water for bathing and hygiene purposes only
- Boil your water before consuming

[This information has been redacted]

7.5 Communicating with no electricity

A risk that will have major impact on the operations of telecoms is H41: “Technical failure of national electricity network which gives the assumption of total blackout for up to 3 – 5 days due to loss of the National Grid”. Responder telecommunications are predominantly dependent upon the power supply and so responders are expected to have in place local resilient telecommunications plans and/or process to enable them to fulfil respective organisations business continuity responsibilities. Power supply providers are likely to be the first to be aware of an event that may require alternative ways of communicating. Responders should refer to the **London Disruption to Telecommunications for Responders Plan**, available on Resilience Direct.

In the event of loss of communications and the requirement for local responders to coordinate, the locally identified RVP to convene at in the first instance is [This information has been redacted]

8 Electricity Supply Disruption

8.1 Issues for Consideration

<u>Theme</u>	<u>Issue / Consideration that may arise</u>	<u>Potential action(s) to be taken</u>
Current and forecasted temperature / weather conditions	Electricity supply disruption would have a greater impact in the winter due to central heating systems not functioning and nights getting darker earlier leading to potential fire risk from candle use.	Organisations to reiterate press statements from the UKPN / LFB
Coordination	Are any responding agencies’ building affected by the power outage?	Organisations to report any internal issues they are experiencing and any impacts that it is having.

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<u>Theme</u>	<u>Issue / Consideration that may arise</u>	<u>Potential action(s) to be taken</u>
	Is co-location required at a venue with a backup generator?	Consider locations and the facilities required
	What, if any, means of communication are affected? (Transmission of mobile telephone signals potentially affected / Loss of broadband or WiFi signal)	In the event of loss of communications and the requirement for local responders to coordinate, responders are to convene at the locally identified RVP in the first instance.
Security / access systems	If electronic locks default to closed - may restrict access to buildings and/or cause people to be trapped inside.	
	If electronic locks default to open - may make buildings unsecure.	Consider if physical security is required.
Other utilities	This would cause a loss of water pressure on upper floors of buildings with multiple floors due to lack of booster pumps.	Refer to Section 10 (Loss of water supply)
	Disruption to fuel (if filling stations are closed) as forecourts need electricity to run the pumps.	Refer to section 12 (Fuel disruption)
Travel	Traffic signals may go out of service, resulting in traffic jams and unusually hazardous situations	<ul style="list-style-type: none"> • Consider early liaison with TfL to identify any areas of risk. • Mobilisation of Council Highways resources to implement traffic management measures • Reactive road closures from the Police in response to incidents.
	Trains and trams may be disrupted, causing crowds of stationary people around transport hubs (e.g. East Croydon Train Station) and unable to travel.	<ul style="list-style-type: none"> • Consider opening Rest Centres/ supporting places of transition/ waiting (i.e. Box Park) • Support alternative travel options i.e. shared taxis, buses/ coaches, etc.
Finance	No power to ATMs, causing issues with the public and responding agencies in being able to obtain cash.	
	Electronic Point of Sale (EPoS) devices to make card payments in shops will not function	Support communication messages for businesses – i.e. open but cash only or closed.
Public health	Food and water availability	Consider requesting a Science and Technical Advisory Cell (STAC) is convened through London Resilience Group (LRG) if regional arrangements aren't activated.
	Sanitation and hygiene	
Safety	Should large activities/events go ahead without adequate power supply?	Make contact with the Croydon Safety Advisory Group to identify any risks with events taking place and take appropriate action.

<u>Theme</u>	<u>Issue / Consideration that may arise</u>	<u>Potential action(s) to be taken</u>
	Is it safe for people to remain in their homes/workplaces, or is an evacuation and rest centre required?	Consider early identification of potential rest centres, and putting staff/locations on standby.
	Loss of street lighting and CCTV	
	Maintain awareness of community cohesion issues, especially as shops and filling stations may be closed due to power failure	Monitor any local impacts through: <ul style="list-style-type: none"> • Complaints that come through to the Council Contact Centre • Making contact with Business Improvement Districts (through the Council Economic Development team) • Making contact with local community / faith groups • Social media

8.2 Maintaining Situational Awareness

- **Text message:** To register text **Power** and the relevant **post code** (e.g. **Power CR0 1EA**) to **80876**; updates are provided 24 hours a day until the power has been restored; to stop receiving messages text **CANCEL** to **80876**
- **Web site information:** Current incidents affecting the East of England, London and the South East data may be found at: <http://www.ukpowernetworks.co.uk/faultinfo/curr.php>.
 - UK Power Networks also have a web-based application called the “Live! Power cut map” to show all faults on their network. This may be found at: <http://www.ukpowernetworks.co.uk/internet/en/fault-map/>
- **Vulnerable People:** If the British Red Cross has been activated (see below), they will have been advised of the addresses of vulnerable people registered with UK Power Networks that have been affected. This list of addresses may be shared with local authorities to ensure a consistent approach to caring for vulnerable people.

8.3 British Red Cross

British Red Cross maintains a contract with UK Power Networks to support vulnerable residents who are signed up to their Priority Services Register. This mainly involves providing torches, hot water for drinks and reassurance, as well as being able to escalate additional needs. **Annex C:** British Red Cross and UK Power Networks criteria for attending a scene provides an overview of when UK Power Networks will activate the assistance of the British Red Cross.

8.4 Wide Area Disruption

A power supply disruption affecting a wider area than a single borough could necessitate the activation of the **London Power Supply Disruption Plan**. This framework is maintained by London Resilience with multi agency support, especially from UK Power Networks and the National Grid.

Local activities would be as described, with coordination being conducted top-down at the London level for a regional power supply failure, or nationally for a “Black Start” event (see the Risk Assessment section above) affecting the whole country. Details are given in the London Power Supply Disruption Plan, available on Resilience Direct so they are not repeated here.

9 Gas Supply Disruption

9.1 Responsibilities

SGN will do the following (in addition to the generic responsibilities in section 6) in prolonged gas supply disruption incidents:

- Have information letters delivered to all affected properties with updates
- Visit every property to isolate gas supply
- Visit all properties identified as having customers in vulnerable circumstances to assess needs and provide any additional support required. Follow up visits/calls arranged as necessary
- Set up of a local Incident/Customer Centre(s) to provide information, answer questions and offer support to customers in vulnerable circumstances
- Provide alternative heating/ cooking (dependent on number of properties affected and local electrical grid capacity)
- Potentially source alternative locations for showering/bathing facilities.

9.2 Issues for Consideration

<u>Theme</u>	<u>Issue / Consideration that may arise</u>	<u>Potential action(s) to be taken</u>
Notification	Local responders called to a gas leak should confirm that the gas company has been notified of the supply disruption.	
Current and forecasted temperature / weather conditions	Gas supply disruption would have a greater impact in the winter due to central heating systems not functioning, and potential fire risk from lighting fires / candles.	<ul style="list-style-type: none"> • Organisations to reiterate press statements from the gas network operator / gas companies / LFB • Mobile/deployed staff to reiterate these messages to vulnerable residents in person (social workers, Meals on Wheels, police officers etc.) • Supporting SGN with welfare checks on vulnerable residents
Communication	Support the gas network operator in the delivery of letters to residents	Consider through agencies that have mobile staff (e.g. Meals on Wheels, Neighbourhood Safety Officers, Social workers, Outreach workers, Neighbourhood Police)
	Support the gas network operator in identifying a suitable location for an Incident / Customer Centre	Look at pre-established links with leisure centres, schools, agency premises, etc.
Safety	Is it safe for people to remain in their homes/workplaces, or is an evacuation and rest centre required?	Consider early identification of potential rest centres, transportation and putting staff/locations on standby.
	Maintain awareness of community cohesion issues	Monitor any local impacts through: <ul style="list-style-type: none"> • Complaints that come through to the Council Contact Centre • Making contact with Business Improvement Districts (through the Council Economic Development team) • Making contact with local community / faith groups

9.3 Maintaining Situational Awareness

- **Web site information:** Current emergency repairs data may be found at: www.sgn.co.uk/Roadworks/Emergency-repairs
- **SGN neighbourhood alerts:** SGN Alert is a free messaging system that sends those who register alerts about gas incidents in their area via email, recorded message or text. More information can be found on the [SGN Alert website](#).
- **Vulnerable People:**
 - SGN holds an 'Extra care' can be contacted to obtain those registered, and after initial contact will organise follow up visits/calls as required.

9.4 Wide Area Disruption

A gas supply disruption affecting a wider area than a single borough could necessitate the activation of regional arrangements using the London Strategic Coordination Protocol. This protocol is maintained by London Resilience with multi-agency support.

Local activities would be as described, with coordination being conducted at the London level for a regional gas supply failure, or nationally for an event affecting the whole country.

10 Water Supply Disruption (Loss of supply)

It is likely that alternative water supplies to vulnerable people will be provided in the form of bottled water, whilst water to the general public will be provide via static tanks although these arrangements may vary depending on the availability of supplies, availability of resources and the location and distribution of the population affected. Consideration should be given to the need to provide safe water for livestock and pets.

Hub Distribution Models: A Practical Guide for Emergency Planners guidance outlines site requirements and management considerations, including water quantities, logistics and staffing for water disruptions. **Annex D:** Croydon's Hub Distribution Model contains the hub distribution model for the London Borough of Croydon and **Annex E:** Template to Calculate Resources needed for Water Distribution.

10.1 Issues for Consideration

<u>Theme</u>	<u>Issue / Consideration that may arise</u>	<u>Potential action(s) to be taken</u>
Notification	Because of the inherent resilience of the water supply network, water companies may not always be the first to know that a disruption to their supply has occurred. (E.g. a burst water main may be reported to the emergency services as a result of the traffic disruption or localised flooding caused)	Local responders called to a site of water supply disruption should confirm that the relevant water company has been notified of the supply disruption.
	Any 'emergency' work on the highways has to be notified to the Croydon Council Network Management Team within two hours.	
Public health	Limited availability of water for bathing, flushing lavatories, hygiene and laundry purposes	Consider requesting a Science and Technical Advisory Cell (STAC) is convened through London Resilience Group (LRG) if regional arrangements aren't activated.
	When bowsers are used for water distribution rather than sealed bottles, the public are required to bring their own containers which may not be suitable	Reiterate press statements from the water provider around bringing suitable containers to collect water to manage expectations
Other utilities	Gas central heating could also fail should there be inadequate water within the system to feed the boilers. In this case, the Gas Supply Disruption activities described above should be used.	Refer to Section 9 (Gas Supply Disruption)
	The operation of the water supply network is dependent upon the power supply network. Therefore a power supply disruptive incident may impact water supply.	Refer to Section 8 (Electricity Supply Disruption)

<u>Theme</u>	<u>Issue / Consideration that may arise</u>	<u>Potential action(s) to be taken</u>
Communications	Support the water company in the delivery of bottled water to vulnerable residents.	<p>Agencies that have mobile staff in the community</p> <ul style="list-style-type: none"> • Meals on Wheels • Social workers • Outreach workers • Community nurses
Safety	<p>Panic buying at shops / supermarkets <i>(Recent incidents have shown the public may start panic buying very early into the incident, before the extent of the situation is fully known).</i></p>	<ul style="list-style-type: none"> • Reiterate water company press statement regarding panic buying of water
	<p>Public disorder at:</p> <ul style="list-style-type: none"> • Shops/ supermarkets • Water collection points, as bottled water will be provided to private residents for drinking from Thames Water / SES Water, but not to offices and businesses. • Water collection points (bowzers), as companies are not required to supply water collection vessels to the public and it should be recognised not everyone will have suitable containers. 	<ul style="list-style-type: none"> • Consider deployment of: <ul style="list-style-type: none"> ○ Police (which would have to be reactive to incidents) ○ Council Neighbourhood Safety Officers ○ SIA Security staff • Reiterate press statements from the water provider around collection of water.
Travel	Congestion and illegal parking around locations of water distribution points, causing traffic jams and transport disruption.	<ul style="list-style-type: none"> • Mobilisation of Council Highways resources to implement traffic management measures. • Mobilisation of Council Parking Enforcement Officers for enforcement against illegal parking in the areas. • Reactive road closures from the Police in response to incidents.

10.2 Maintaining Situational Awareness

- **Vulnerable People:**
 - Thames Water and SES Water operate special care schemes and can be contacted to obtain those registered.
- **Web site information:**
 - Current Thames Water known leaks and activity can be found [here](#).
 - Current SES Water known leaks and activity can be found [here](#).

10.3 Responsibilities

10.3.1 Thames Water & SES Water

- The Security and Emergency Measures Direction (SEMD) stipulates water companies must provide alternative water supplies within 24 hours of an incident. Domestic users must be provided with a minimum of 10 litres of potable water per person, per day, for up to 48 hours, and this rises to 20 litres per person, per day, during a prolonged period normally taken to be 5 days. To put this into context, on average a person typically uses approx. 150 litres of water per day¹.
- In addition water companies must prioritise provision of alternative supplies to 'Sensitive' customers such as schools, hospitals, prisons and nursing homes.
- There is no provision for commercial / business users.
- Water companies have Mutual Aid arrangements with each other which allow them to provide water for up to 250,000 people.

10.3.2 Croydon Council

- Identification of locations that meet the water company requirements for bulk deployment centres (in advance and refresh at time of incident)
- Identification of locations suitable for customer collection points that meet the water company requirements
- Management of traffic impact (supported by Police and TfL):
 - at and around the site of a burst water main on or nearby the highway;
 - at and around the locations of bulk deployment centres;
 - at and around the locations of large public water collection sites;
 - at and around the locations of pedestrian access water collection sites.
- Waste disposal (particularly collection and recycling of the plastic water bottles)
- The provision and coordination of personnel to support the distribution of water to the general public (support by voluntary and other partner agencies).

10.4 Provision and distribution of water

10.4.1 Provision to residents

- Alternative water supplies distribution set up will depend on the location and nature of the incident and the size of the population affected, but generically three types of site will be required as shown in the table below.
- Water to the general public will be provided via static tanks although these arrangements may vary depending on the availability of supplies, availability of resources and the location and distribution of the population affected.
- If water is provided to residents in bottles rather than tanks, it will likely be in the form of packs of 6, 2 litre bottles of water. It should be considered the further challenges this may present in lifting, opening, and using the water.
- Annex 2 of the London Water Supply Disruption Plan v2.0, provides a template which can be used to record details relating to Alternative Water Distribution Stations.

¹ <https://www.ccwater.org.uk/households/using-water-wisely/averagewateruse/>

Type of Site	Use	Management / Access	Key Logistic Requirements	Approx. Size
Bulk deployment centres	24hr logistics site for reception, storage and redeployment of water tankers, bottled water and equipment	<ul style="list-style-type: none"> Managed by the Water Company / logistics lead No public access 	<ul style="list-style-type: none"> Must have road access for large vehicles (tankers and flat-bed lorries) and be close to major route network 	32m x 38m
Large public water collection sites	Public water collection sites with facility for safe vehicle and pedestrian access	<ul style="list-style-type: none"> Management to be determined at time of incident Must have access for smaller water tankers and delivery vehicles 	<ul style="list-style-type: none"> Close proximity to affected area Must have sufficient space to separate vehicles and pedestrian access (or be used solely for one or the other) 	
Pedestrian access water collection sites	'Local' sites from which the public can safely collect water.	<ul style="list-style-type: none"> Management to be determined at time of incident These sites may be as simple as a single static tank situated at the side of the road in an area which is cordoned off from / not accessible by traffic. Must have access for small water tankers to replenish supplies 	<ul style="list-style-type: none"> Close proximity to affected area with safe access for pedestrians when travelling to and from and collecting water. Narrow roads and cul-de-sacs should be avoided 	

10.4.2 Provision to vulnerable people

- Vulnerable people known to the water companies will be provided with water via priority services scheme arrangements.
- Other vulnerable people not known to the water companies, will need to be identified via the **CRF Identification of Vulnerable Persons Plan**, and then arrangements made according to their need.
- It is likely that alternative water supplies to vulnerable people will be provided in the form of packs of 6, 2 litre bottles of water, which may present further challenges to the vulnerable person in lifting, opening, and using the water.

10.5 Wide Area Disruption

A water supply disruption affecting a wider area than a single borough could necessitate the activation of the London Water Supply Disruption Plan. The [London Water Supply Disruption Plan](#) (available on Resilience Direct) applies to any 'major' water supply outage within the London Local Resilience Forum area i.e. any water supply outage which is beyond the response capability of the water company concerned, even with mutual aid, and which requires a multiagency response.

11 Water Supply Disruption (Contamination)

11.1 Thames Water & SES Water Responsibilities

The below water provider responsibilities are in addition to those identified for loss of supply (Section 10.1):

- Sampling and testing the water by their own staff or specialist contractors
- Providing advice to consumers (taken in consultation with Public Health England (PHE) and the Drinking Water Inspectorate (DWI)).

11.2 Issues for Consideration

The below highlights further issues for consideration, in addition to those identified for loss of supply (Section 10.3):

<u>Theme</u>	<u>Issue / Consideration that may arise</u>	<u>Potential action(s) to be taken</u>
Safety	Increase in scalding incidents when people boil tap water in pans	<ul style="list-style-type: none"> • Organisations to reiterate press statements from the water provider / LFB • Mobile staff to reiterate these messages to vulnerable residents in person (social workers, Meals on Wheels, etc.) • Supporting the water company with welfare checks on vulnerable residents
	Potential fire risk from pans left unattended when boiling water	
	Potential increased food safety visits to establishments in the affected area	
Communications	Support the water company in delivering boil notices	Consider delivery through organisations that have mobile staff (Meals on Wheels, social workers, outreach workers, Neighbourhood Safety Officers, home visitors, community nurses etc.) and support from the voluntary sector.
		Croydon Council Adult Social Care can also support in the production of boil notices in pictorial / easy read formats for those residents with learning difficulties.
Public Health	Potential symptoms of ingesting contaminated water	Consider requesting a Science and Technical Advisory Cell (STAC) is convened through London Resilience Group (LRG) if regional arrangements aren't activated.

12 Fuel supply disruption

The disruption to fuel supply can occur in conjunction with utility supply disruptions. The National Resilience Planning Assumptions indicate that in the most extreme circumstances petrol stations and commercial supplies could be exhausted within 48 hours of a fuel disruption, and it could take up to 10-days before stock levels are fully restored.

All organisations are expected to have:

- Up to date business continuity plans
- Sufficient resilience measures in place to maintain critical functions without recourse to the provisions of the National Emergency Plan for Fuel for 10 days

Key documents that can be used to support planning for fuel disruptions are:

- Individual agency fuel disruption plans
 - National Emergency Plan for Fuel (available on Resilience Direct)
 - London Fuel Disruption Protocol (available on Resilience Direct)
- Government [Business Continuity Management for Fuel Shortages](#) guidance

13 Stand-Down Procedures

The utility company will inform the local authority when supply has returned to normal. The local authority DRA will then cascade this message to the Resilience Forum.

14 Recovery

The purpose of providing recovery support is to assist the affected community towards management of its own recovery. It is recognised that where a community experiences a significant emergency, there is a need to supplement the personal, family and community structures which have been disrupted.

Croydon Council will take the lead on recovery following an incident. This could be a joint Recovery Coordinating Group with multi-agency partners and neighbouring boroughs should the incident impact across local authority borders. Activities in the recovery phase will be dependent upon the extent of the impacts on the local community.

Please refer to the **London Recovery Management Protocol** (June 2016) for further details on recovery. The below table outlines incident specific issues that may need to be considered during the recovery phase after a utility supply disruption incident.

Disruption type	Recovery consideration
Electricity supply disruption	<ul style="list-style-type: none"> • Staged restoration of power • Temporary vs. permanent repairs and management of public expectations • Where flood water cause power cuts, power cannot be restored until flood waters recede from substations and customer's properties and all "flooded" plant and equipment has been inspected and maintained etc. • Recovery of critical services
Gas supply disruption	<ul style="list-style-type: none"> • For gas supplies to be restored, SGN require to access the gas meter for every property affected to isolate their individual supply, before anything can be turned back on. • Permanent /temporary repairs, remedial work and testing may be required. • Management of public expectations on the restoration • Depending on the type and scale of the incident this may be a staged restoration

Disruption type	Recovery consideration
	<ul style="list-style-type: none"> • Wherever possible, vulnerable customers are prioritised to have their supply restored first.
Water supply disruption	<ul style="list-style-type: none"> • The need for a staged restoration of piped water supplies and associated management of public expectations • Water quality sampling and analysis • Removal of any advised restrictions on use • Management of adverse impacts (if any) on the wastewater service • Increased recycling collections following the use of bottled water • Public reassurance – particularly following water contamination • Recovery of critical services. • Communications – the delivery of the ‘all clear’ message.
All	<ul style="list-style-type: none"> • Longer term impact to health and wellbeing of individuals.

15 Plan Maintenance Procedures

15.1 Validation

This guidance should be tested via exercise or other appropriate testing event with relevant stakeholders. The following evidence is required to prove this validation:

- Post exercise report including actions, recommendations, and record of attendees.
- Incident reports (after a real plan activation).

15.2 Training / Exercise

- Once validated, training requirements (i.e. content, skills, frequency, etc.) should be identified and an appropriate training package designed.
- Training and exercises should be scheduled and conducted on a regular basis for all staff necessary to activate this guidance.
- This guidance can be exercised alongside other council and multi-agency plans.

Annex A: Acronyms

The acronyms below relate to this plan. For more, see the lexicon of UK civil protection terminology [here](#).

Acronym	Definition
BECC	Borough Emergency Control Centre
BRC	British Red Cross
CCG	Croydon Clinical Commissioning Group
CHS	Croydon Health Services NHS Trust
CRF	Croydon Resilience Forum
DRA	(Croydon Council) Duty Resilience Advisor
LA	Local Authority
LALO	Local Authority Liaison Officer
LBC	London Borough of Croydon
LFB	London Fire Brigade
LESLP	London Emergency Services Liaison Panel
RT	(Croydon Council) Resilience Team
PHE	Public Health England
SES Water	Sutton and East Surrey Water
SGN	Southern Gas Networks
UKPN	UK Power Networks

Annex B: Utility Contact Information

This information has been redacted.

Annex C: British Red Cross and UK Power Networks criteria for attending a scene

This information has been redacted.

Annex D: Croydon's Hub Distribution Model Framework
This information has been redacted.

Annex E: Template to Calculate Resources needed for Water Distribution

This information has been redacted.

NOT PROTECTIVELY MARKED

Annex F: Potential pre-identified locations for water distribution
This information has been redacted.