

# Creating a Resilient Supply Chain

How our resilience, business continuity  
and IT disaster recovery frameworks support you



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**Our vision is to make it easier for the NHS to put patients first. To do that, we have to ‘Buy Smart’, ‘Supply Right’ and ‘Partner Expertly’. We recognise we are one NHS Supply Chain - one organisation in the eyes of our teams and stakeholders, operating efficiently as a single organisation within the NHS family.**

Our customers see us as by far the largest supplier to the NHS. But, of course, we’re not a supplier in the traditional sense. Our customers regularly order about 80,000 different products (with about 600,000 available in our catalogue) and we have relationships with over 1,000 suppliers.

As the largest supplier to the NHS, our customers often ask about our business continuity plan. As you’ll see from this document, there are many ways we build resilience into the NHS Supply Chain - both preventative measures designed to stop issues occurring in the first place, and measures that help us respond quickly and effectively if things do go wrong. Indeed, we don’t just have a single business continuity plan, we have many different plans for different scenarios.

Our customers rely on us so they can deliver quality care. This document explains how we support them by helping to build a resilient supply chain. It describes:

- Our services and the investments we’re making to reduce the risk of incidents.
- Our resilience, business continuity and IT disaster recovery frameworks.
- Our plans in relation to key scenarios - examples and frequently asked questions.

## Chief Executive’s Statement

“Since I joined NHS Supply Chain, I’ve been focused on making sure we work together with our NHS partners to deliver patient-led care. Collaboration across the system is more important than ever as the NHS is going through a period of both challenge and change.

I recognise the important role that we play in helping the NHS respond to those challenges. That’s why we’ve consulted with ICSs to agree our new service offering and we’re investing heavily over multiple years to develop our systems and capabilities, with improved resilience across the end-to-end supply chain. This document will help you understand the key ways we are doing that.

Of course, we know a truly resilient supply chain needs clear roles and responsibilities for all so everyone can play their part, as well as collaboration across the whole healthcare system.

We’ll continue to work with NHS trusts and ICSs to ensure we collectively maintain a resilient and high-performing supply chain.”

**Andrew New**  
Chief Executive Officer





# Our Services and Investment

Building a resilient supply chain involves more than simply responding to issues if they arise.

Our Business Plan and strategy also focus on providing the key services and investment that will help prevent issues occurring in the first place.

Our services are set out in more detail in our Value Proposition and Business Plan. Key elements of our services and investment that help build resilience into the wider healthcare network are summarised in this section.



# Our Services and How We're Investing to Prevent Issues

## Expanding capacity

Across our network, we are expanding capacity - for example, by building our new regional distribution centre in the north-west (Gorse Point).

This allows us to increase stock levels for critical products.

We're also providing national pandemic response logistics services such as the storage and distribution of PPE.

## Inventory management

We're rolling out new inventory management solutions to healthcare providers to increase stock visibility and help them manage their stock more effectively.

## Supplier management

We've implemented a supplier relationship management framework to ensure we source the right quality products via a resilient and reliable supply chain. The framework includes:

- Annual segmentation of suppliers (Strategic, Preferred, Key or Transactional).
- Onboarding process ensuring expectations are clear and met (such as for critical data and cyber security).
- Proactive relationship management plans, engagement and governance.
- Cross-functional supplier performance management using a dashboard to regularly monitor performance.
- Supplier development activity to drive resilience, continuous improvement and optimise routes to market.
- Supplier assurance to identify, assess and mitigate potential risks.

We regularly assess the economic and financial standing of suppliers, starting during the tender process. This includes the use of financial analysis and ratios.

Terms and Conditions suppliers are contracted to require they maintain business continuity plans and test them at least annually. For certain frameworks, we also specify the scenarios that should be tested, including stopping production for up to four months and interrupting the supply of raw materials for up to two months.

# Our Services and How We're Investing to Prevent Issues

## Warehouse management system

We're implementing a new warehouse management system to increase our IT resilience and IT security.

## Core list

As part of NHS England's strategic framework, we're implementing a NHS core list of products. We'll provide the highest level of resilience for these through stock holding, alternatives and supply chain mapping.

## Product mapping

Our catalogue clearly identifies clinically assessed alternative products with similar specifications and quality, helping you choose suitable alternatives if a product is not available.

## Demand management

If necessary (or instructed by NHS England), we can implement demand management controls to ensure limited products in temporary high demand are prioritised appropriately.

## Digital commerce platform

We're launching our new digital commerce platform making it easier for healthcare providers to find and order the products they need whilst also improving stability, functionality and security.

## Resilience frameworks

Our services and programme of investment, are supported by three dedicated frameworks.

These are specifically designed to:

- Proactively manage emerging product resilience issues.
- Help us respond to operational business continuity incidents.
- Plan for significant IT disaster recovery scenarios.



# Our Frameworks

Our dedicated frameworks are specifically designed to proactively manage emerging product resilience issues, help us respond to operational business continuity incidents, and plan for significant IT disaster recovery scenarios.

These frameworks are described in this section.



# Our Resilience Framework

Our resilience framework seeks to prevent supply chain disruptions. Where this is not possible, it ensures we proactively manage issues.

The framework is co-ordinated by our dedicated Resilience function and brings together relevant experts from across our organisation. We monitor global events to identify potential supply disruptions early. This ensures we act on a timely basis when we become aware of potential issues.

## Managing product supply disruptions

Our RAPID assessment tool helps us identify, assess and respond to product supply disruptions. Our procurement teams use the tool as soon as they become aware of any potential or actual disruption. It prompts them to gather key information, such as:

- Supplier details.
- National Product Codes (NPCs).
- Stock positions.
- Customers impacted.
- Expected duration.

Examples of products where potential disruption has been minimised by our resilience framework include: urine meters, IV sets, oxygen consumables, foetal pillows, loss of resistance syringes and umbilical catheters.





# Our Resilience Framework

## Disruption response

- Our Resilience team is automatically notified when the tool is used so they can quickly review the initial assessment.
- Our Clinical team also reviews any issues for patient safety implications (using our Safety InteRvENTION (SIREN) process).
- Issues are rated with responses to 'High' issues co-ordinated by our Resilience team and reported on at weekly service calls.

Depending on the incident a range of tools can be used to help mitigate the impact, including:

- **Multi-disciplinary team:** Regular meetings involving experts from across our organisation drive action quickly.
- **Demand management:** Maintains continuity of supply for critical products and ensures stock is shared fairly (albeit in reduced quantities) where normal supply is disrupted.
- **Alternative products:** Similar quality and specification products can be sourced.

In addition, we've developed a segmentation tool that assesses the clinical impact of products. The resulting vulnerability score enables us to focus resources proactively on products where resilience issues could have the largest impact; for example, by increasing stock of those products, especially where previous resilience issues have been experienced.



# Our Resilience Framework

As well as managing product supply disruptions, our Resilience team supports broader preventative measures. In addition to the key measures summarised in the section 'Our Services and Investment', other initiatives include:

## **Category management process**

Clear criteria that support risk reduction are required at each stage of the category management process:

- Category strategies include a separate section on resilience, with oversight from our Resilience team.
- Category strategies must consider the clinical implications of a disruption and any previous disruptions.
- Sourcing strategies include a resilience risk rating.
- Contract awards include proactive risk management steps (such as: additional certification assurance; multiple suppliers; alternative products; supply chain visibility; financial health analysis; geographical spread).
- Direct involvement of our Resilience team at the Category Council.

## **Supply chain intelligence programme**

We are part of a government programme led by the Department for Business and Trade that uses AI technology to provide detailed mapping of supply chains beyond our Tier 1 suppliers. This will map the top 8,000 products in our catalogue and provide greater insight into our supply chain, especially for products critical to patient care. Data is summarised in dashboards that enable us to understand the risks across our key supplier portfolio better.

# Our Business Continuity Framework

## Governance and oversight

Our Chief Financial Officer (CFO) sponsors our business continuity framework. There are four levels of governance that provide oversight:

- **Business Continuity Steering Group**

Every month, this brings together senior leaders and subject matter experts. The group is responsible for the design, implementation and delivery of the business continuity framework. It monitors the completion of business continuity tests and lessons learned.

- **Business Continuity Champions Network**

This monthly network involves representatives from each of our directorates who are responsible for co-ordinating the delivery of day-to-day business continuity activities.

- **Supply Chain Executive team**

Our Executive team sets the strategic direction for the framework and provides a point of escalation. The Executive team receives bi-annual reports on business continuity.

- **Audit and Risk Committee**

This sub-committee of our Board meets periodically to review and challenge the business continuity framework. Our risk register includes a principal risk related to business continuity and the Committee receives regular reports on this risk.

- Our business continuity policy includes a commitment to embed a framework that is aligned to ISO Standard 22301.



# Our Business Continuity Framework

## Business continuity planning

Our risk management framework sets out how the key risks to the business are identified, managed and reported. Our business continuity framework is aligned to this framework. Key business continuity risks are included in the risk report.

## Business impact analysis

Each directorate uses a Business Impact Analysis annually to assess the possible impact of disruption to their key activities. This analysis is conducted locally and reviewed with the relevant Senior Leadership team (SLT) member. Key systems are classified based on their level of importance to the business with impacts managed under the IT disaster recovery framework.

## Business continuity plans

Each directorate has developed a business continuity plan. We have also developed several targeted plans to provide guidance in specific circumstances. These plans are all reviewed at least annually.

Key service providers, including our logistics partner and Home Delivery Service partner, are contractually required to develop, maintain and test business continuity and disaster recovery plans. These plans and the results of tests are shared with us. For contractual reasons, we're unable to share copies of their plans.

Our Assurance team regularly reviews the business continuity arrangements at service providers using a checklist developed with our Business Continuity Manager.



# Our Business Continuity Framework



## Business continuity tests

We regularly test our business continuity plans at several different levels to ensure they are effective. A risk-based approach is used to help identify and target these tests.

Typical tests include:

- Directorate-level business continuity plan tests.
- End-to-end tests with service providers participating as required.
- Communication tests.

Lessons learned are identified following tests, then used to improve the plans going forwards.

# Our Business Continuity Framework

## Incident management process

We have trained key stakeholders to use our incident management process. This helps ensure we have effective arrangements in place to respond to incidents.

Business continuity events are classified as either Gold, Silver or Bronze incidents with each type of incident receiving a different level of co-ordination and oversight.

The response to all incidents is coordinated by an Incident Manager, with the most significant incidents managed at Executive level. An onsite incident response centre can be established, if required.

Where the incident warrants it, we will notify NHS Resilience (formerly NHS England Emergency Preparedness, Resilience and Response (EPRR)) and co-ordinate our response with them. More details of how we will communicate during a significant incident can be found on page 19.

Templates have been developed to ensure consistency and speed of response. In addition, detailed playbooks help guide the response to specific scenarios. These cover things like: a cyber-attack; an IT network outage; supplier failure; and, a bomb threat or other terrorist attack.

Post-incident reviews help to identify lessons learned.



# Our IT Disaster Recovery Framework

This framework outlines how we restore access and functionality to IT systems after an outage. In this section we also describe our key cyber security controls.

Our IT disaster recovery framework requires close collaboration between our colleagues and our IT service provider partners. It is also linked to our business continuity framework, to ensure we consider the wider implications of any incident, especially if the incident lasts for an extended period.

## Disaster recovery

IT incidents that interrupt service can happen at any time, especially if they are caused by attacks on our systems from external parties. Whilst we have sophisticated event monitoring tools, IT outages may still occur.

Our well-tested disaster recovery plans are designed to minimise the impact of disruptions, recover IT systems quickly and resume core operations as soon as possible if outages occur.

## Disaster recovery plans

We use over 80 business applications, 30 of which we have classified as 'Business Critical'. Each application has its own disaster recovery plan.

Our IT team works closely with our IT partners to ensure these plans are tested regularly. Reports summarise the outcome of each test, and any learnings are addressed so that we continuously improve.



# Our IT Disaster Recovery Framework

## Policies and processes

Our IT disaster recovery framework is supported by policies and processes to manage incidents. For example:

- Incident and major incident management.
- Information security.
- Operations security.
- Cryptography security.
- Password management.
- Access control.

Our incident and major incident process:

- Defines the different levels of incident.
- Explains how to route, investigate and close an incident.
- Clarifies roles and responsibilities.
- Sets out the governance arrangements for incidents.

## Data centres

Our IT operates via a combination of legacy data centres and new cloud-based solutions. Our IT is hosted in two UK data centres with all critical systems duplicated in both centres, so if one suffers an outage the IT services fail over to the alternative site.

## IT modernisation programme

Our critical business applications are being migrated away from legacy data centres into modern, scalable cloud-based solutions. Ultimately, all our critical systems will be hosted by Oracle or Google.

Cloud-based disaster recovery solutions are more scalable, accessible and cost-effective. Our two data centres are robust, but they limit the speed at which the IT fail over can occur. Cloud-based solutions offer almost real time disaster recovery.

Our newest digital commerce platform is a full cloud-based solution with fast disaster recovery solutions, to resume critical operations with minimal downtime.

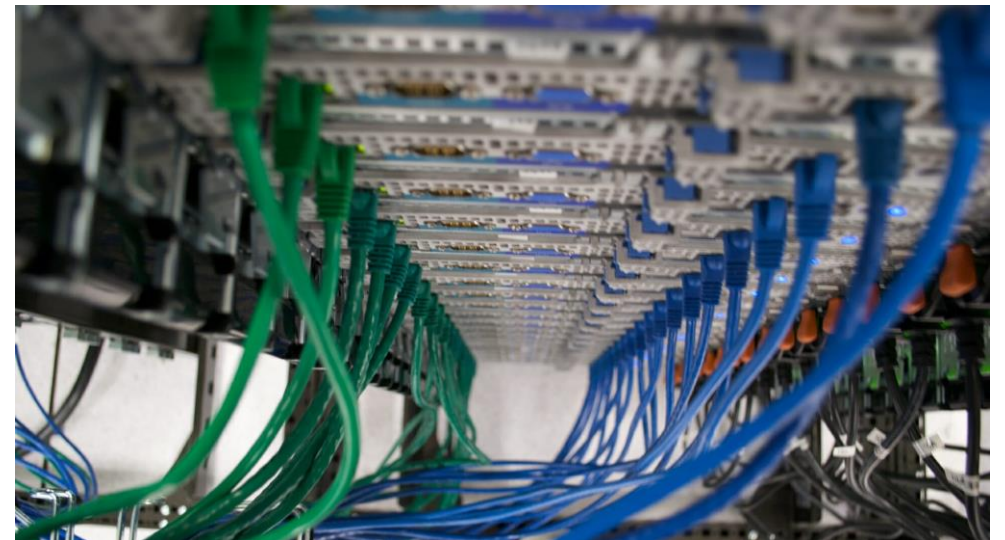


# Our IT Disaster Recovery Framework

## Cyber security

Whilst we can't prevent people with malicious intent trying to gain access to our systems, we have a range of controls in place to minimise their chances of success. For example:

- **NHS England Data and Security Protection Toolkit:** This toolkit is our compliance framework; we regularly assess our controls against it.
- **Monitoring and Alerting:** Our specialist cyber security partner monitors our systems 24/7 and alerts us to any attempted attacks.
- **Identity and Access Management:** Our access management controls include multi-factor authentication for all users.
- **Vulnerability Management:** In addition to investing in our systems to improve the inherent security of our IT estate, we regularly scan all assets for vulnerabilities so we can patch those identified.
- **Third Party Security Risk Management:** All suppliers are required to hold 'Cyber Essentials Plus certification' or provide assurance they meet the required standard.
- **Colleague Training and Awareness:** All colleagues must complete annual cyber security training; we also run regular simulated phishing campaigns to help colleagues identify suspicious emails.
- **Policies:** Our Information Security Policy is one of our core policies; this means that all colleagues must read and acknowledge it when they join and following any material changes to the policy.



# During a Significant Incident

Every incident is different.

This section outlines how we will communicate during a significant incident that goes on for an extended period.

It also outlines some of the things you should do to help make sure incidents can be managed as effectively as possible.

This section primarily relates to extended, system-wide incidents (such as IT outages) rather than individual product availability issues.



# How We Will Communicate During a Significant Incident

## Communicating with you directly ...

We use a range of different communication channels:

- We may email updates to the relevant teams / people through our Major Incident procedures (including your nominated Critical Contact).
- We may use website updates, enabling you to check the latest position on the issue online.
- We may use webinars and depending on the incident these could be one-off or on a regular basis until the issue is resolved.
- We may use social media messages to provide updates, depending on the nature of the incident.
- We may communicate via your ICS manager.
- We may use Important Customer Notices (ICNs) to give details of significant product availability or product safety issues; for significant incidents these will also be pinned to the top of the website page to make them easier to find:

<https://www.supplychain.nhs.uk/icns>

## Co-ordinating with NHS Resilience ...

- NHS Resilience have defined four NHS incident response levels.
- The first two are managed locally.  
Level 3 incidents are co-ordinated by NHS England at a regional level.  
Level 4 incidents are led by the NHS England Incident Management team at a national level.
- When we convene our Incident Management team for a Gold level incident the Incident Manager assesses whether to notify NHS Resilience (for example, a protracted incident that threatens the delivery of essential functions across multiple sites).
- If NHS Resilience need to contact impacted healthcare providers they have a range of options, including using the Regional and National Operating Centres.

# Things You Should Do

## Things you should do ...

- Do** make sure your staff know who your central point of contact with us is and how they will cascade information to them.
- Do** have a plan for how you will communicate with your staff out of hours, if necessary.
- Do** have a list of key products that are most critical to your Trust.
- Do** agree suitable alternatives for your key products in advance.
- Do** be aware of how much stock you have locally and how long you expect it to last.
- Do** tell us about any urgent picks.

## Things you should not do ...

- Don't** change your order pattern.
- Don't** order more stock than you need.
- Don't** order directly from suppliers unless we tell you to, or that is your usual order route.



# Frequently Asked Questions

There are lots of examples of our frameworks in action. A few of these are described in the following pages.



# Managing Risk - Suppliers or Individual Products

## How do you manage the risks of individual products not being available or key suppliers failing?

If availability issues cannot be avoided, our resilience framework helps minimise the impacts to the supply chain.

### Preventing issues occurring in the first place

Here are some of the things we are doing to help prevent issues occurring in the first place:

- Opening our largest regional distribution centre at Gorsey Point means we can hold more stock overall.
- We've increased stock levels for critical products.
- We're working with NHS England to develop a core list of products to focus on in terms of resilience.
- We're increasing the number of clinically assessed alternative products in our catalogue.
- We're investing in new local inventory management solutions to help healthcare providers manage their own stock effectively.
- Our new digital commerce platform and warehouse management system will improve our IT resilience and improve the customer experience.

## Our supplier relationship management framework

Our Supplier Relationship Management team works with colleagues across the business to manage suppliers proactively.

We segment our suppliers annually so we can focus on our Strategic and Preferred suppliers. Our supplier relationship management framework helps avoid disruption by:

- Completing due diligence before suppliers are added to a framework to ensure they meet the minimum standards for areas such as cyber security, critical data and regulatory compliance.
- Having dedicated supplier managers for all Strategic and Preferred suppliers.
- Using a performance dashboard to regularly monitor performance.
- Regularly assessing supplier financial resilience, including monitoring press coverage, changes to key personnel and County Court Judgements.



# Using Our Resilience Framework When Issues Occur

## A case study - urine meters

When Russia invaded Ukraine, the market leader in urine meters withdrew as their production site was in Belarus. The impact was felt across the UK, Europe and globally. We quickly realised the other framework suppliers could not increase production fast enough to meet the additional demand.

## Our resilience framework in action

Our Resilience team worked with experts across the business to take action, avoid a stock out and minimise the impact on customers:

- We moved quickly to maximise supply from existing suppliers.
- We made sure we had visibility of the incoming product pipeline and timetable.
- We analysed the expected demand profile and identified the risk of a stock out due to the six-week shipping time from China.
- We applied demand management to selected products to ensure stock remained available and was prioritised accordingly whilst we increased supply from off-framework suppliers.
- We identified an off-framework supplier (using regulation 72) that could support in the short term.
- As this supplier was in China, we initially used air freight to avoid a stock out.
- After approximately two months we were able to lift the demand management restrictions as additional stock had started to arrive by ship from China.



# Our Supplier Relationship Management Framework in Action

## A case study - pre-filled syringes

In early 2024, we discussed issues around pre-filled syringes with one of our Key suppliers. They were concerned about long-term supply challenges relating to products within their portfolio they were not directly supplying. Whilst the alternative products being used were more competitively priced, the ongoing supply challenges and far lower sustainability credentials meant they often had to be reactive in filling supply gaps at short notice.

## Our supplier relationship management framework in action

Our Supplier Relationship Management team worked with the supplier and colleagues in our wider Commercial team to solve the problem. From September 2024, as a result:

- We have secured investment in a rebate or price point change to encourage committed volume.
- That investment has secured committed volume with the supplier.
- We will increase the level of service for customers, especially by reducing supply challenges and increasing quality.
- We will generate savings of approximately £700,000 for customers.
- We will significantly improve the sustainability credentials of the products supplied.



# Delivering Products if IT Systems are Unavailable

**How do you make sure you can still deliver products if key IT systems are unavailable?**

## **A case study - the warehouse management system**

The warehouse management system (Resus) is used to generate pick lists in our warehouses and re-stock when deliveries are received. It's a 'Mission Critical' system so gets our highest level of focus. However, it's also an old system, so we are developing a modern alternative.

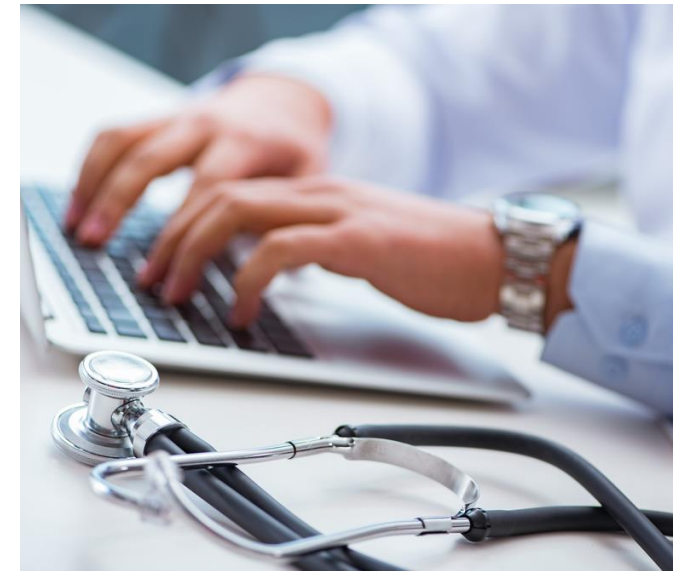
In July 2024, one of the nodes that Resus is based on crashed. This could have disrupted warehouse operations and impacted customers.

## **Our IT disaster recovery framework in action**

Our IT partner immediately started our recovery plan. Resus has four separate nodes, only two of which are needed to run the network. The four nodes are spread across two data centres to improve resilience. This level of resilience is expensive for a legacy system, but it's important given the system's criticality. As a result of our IT disaster recovery plans:

- Network operation was seamlessly maintained by the unaffected nodes.
- The affected node was rebooted, rejoined the cluster and resumed operation.
- There was no loss of service and no disruption to orders or deliveries.

As we transition to a new system, the overall cost will reduce, and resilience will increase further.



# Multiple Plans Depending on the Incident

## What happens if a warehouse is not operational for an extended period; for example, due to a fire or flood?

Our logistics partner has a range of different plans typically maintained by location; for example, for a specific warehouse. These include: the loss of a depot; fire; loss of utilities; and a fuel shortage.

In terms of a fire, the general plans include information like:

- The names and contact details of the Incident Management team.
- Information about the local emergency services, local authority, Environment Agency and utility companies.
- Detailed site maps, instructions on how to shut down utilities and information about fire extinguishers.

A specific fire-related incident response plan for each site includes the initial steps that should be taken and clear roles and responsibilities. These plans also consider the implications for any office-based activity at the site (for example, customer services).

Each site has a 'battle box' that ensures key resources are quickly and easily available, including a laptop and mobile phone.

If any impact to service is expected, our logistics partner must notify us so we can assess whether to invoke any of our frameworks.

If the impact to service is expected to be limited, we typically use our resilience framework to help minimise disruption. In the event of a fire with limited impact, we will focus on restoring full capacity and replenishing lost stock as quickly as possible. We would also liaise with customers due imminent deliveries.

If the impact is expected to be significant, we will convene our own Incident Management team and co-ordinate the response across the whole supply chain. Our Incident Management team includes leaders and experts from directorates across the business, including Supply Chain, Customer, Communication and Marketing and Finance and Trading (including estates).

If the whole site is expected to be lost for more than a day our response would be led by an Executive team member.

The documented plans are designed to guide the immediate response to the fire in the first few hours. The Incident Management team are then responsible for determining the most appropriate ongoing response, co-ordinating actions and monitoring progress.