

ABERDEEN CITY COUNCIL

COMMITTEE	Public Protection Committee
DATE	23 rd February 2022
EXEMPT	No
CONFIDENTIAL	No
REPORT TITLE	Storm Arwen Response and Recovery
REPORT NUMBER	COM/22/040
DIRECTOR	Gale Beattie
CHIEF OFFICER	Fraser Bell
REPORT AUTHOR	Fiona Mann, Emergency Planning, Resilience and Civic Lead
TERMS OF REFERENCE	Remit - 2.4

1. PURPOSE OF REPORT

- 1.1 The report details the Council's response to and recovery from Storm Arwen in order to provide assurance that lessons have been learned and actions identified for similar future incidents. The report also touches upon the very recent Storms Malik and Corrie which were similar in nature to Arwen.

2. RECOMMENDATION(S)

That the Committee –

- a) note that the Council's emergency planning structures responded well to the challenge of Storm Arwen, as well as during subsequent Storms Malik and Corrie;
- b) note that, whilst officers are yet to complete the debrief of Malik and Corrie, it is likely that this will be consistent with the findings of the review of Arwen due to the similar nature of the incident; and
- c) note the priority workstreams identified which will be overseen by the City Resilience Group during 2022.

3. BACKGROUND

The Incident – Storm Arwen

- 3.1 On Friday 26 November 2021, the Met Office issued a series of Yellow, Amber and Red Warnings across the United Kingdom, Scotland, Aberdeen City and Aberdeenshire respectively for significant high winds. The red warning forecast winds of 90 mph.
- 3.2 Storm Arwen was a powerful extratropical cyclone that was part of the 2021-2022 European windstorm season. It affected the UK, Ireland and France, bringing strong winds and snow.
- 3.3 The Council, under its statutory duty to manage emergencies as set out in the Civil Contingencies Act 2004, worked together with other category 1 and 2

responders in the Grampian Local Resilience Partnership (GLRP) to coordinate the response, collaborate and share information with each other and the public.

- 3.4 As a result of Storm Arwen, there was significant, extensive, and widespread power loss across Grampian with approximately 65,000 customers left without power. Many communities were without electrical power until Friday 3rd December 2021, although these were mainly in Aberdeenshire.
- 3.5 The impacts on the City's infrastructure were less severe during Storms Arwen, Malik and Corrie, in comparison to other North local authorities, nevertheless there was still significant damage to the Council's tree population.
- 3.6 All types of trees were affected. A large number were blown down, many uprooted, branches and limbs snapped off, and several trees were left in a precarious and dangerous position. Trees in schools, parks, play areas, open spaces, streets, and woodlands were equally affected.
- 3.7 The arboriculture team worked during the worst of the storm, throughout the weekend, to ensure trees were made safe and that roads were cleared to give safe access. Our roads and arboriculture teams worked closely with the Scottish Rescue and Fire Service and Police Scotland to clear trees presenting danger to lives, homes, and infrastructure.
- 3.8 The wider Environmental Services teams were involved over the weekend and into the following week in the clean-up, removing debris, uplifting branches, and clearing and sweeping open spaces and streets. The Countryside Rangers team inspected sites for safety and access and where necessary and in the areas worst affected, erected signs and displayed messages, advising the public to avoid these areas.
- 3.9 In addition to the out of hours calls received 26 November to 28 November (which trigger most of Priority 1 tree works i.e. roads blocked) the team received over 350 calls (incidents) from the public direct, and through the Council's Firmstep enquiry system. The impact of Storm Malik and Storm Corrie has seen the number of incidents increase to 477 (10 February). Of these incidents 25% have now been completed.

The Regional Communication Centre (RCC)

- 3.10 The RCC is integral to the Council's emergency response – the activation of the GLRP, any blue light major incident or any public emergency call is directed via the RCC to the Duty Emergency Response Coordinator (DERC). Calls to the RCC totalled 13,386 from the Friday evening to Monday morning this covered City Aberdeenshire and Moray.
- 3.11 Scottish and Southern Electricity Networks (SSEN) reported that two years' worth of faults across Grampian had occurred in initial 12 hours of Storm Arwen. There were sporadic pockets of power outages in Bridge of Don, Dyce, Kingswells. In the main the power outages in the City had been resolved within 48 hours. However, Aberdeenshire had prolonged power outage, loss of mobile signal and in some also cases water supply.

Council Emergency Response

- 3.12 Aberdeen City Council Duty Emergency Response Coordinator (DERC) activated the Generic Emergency Plan and stood up a Council Incident Management Team (IMT) to allow for precautionary arrangements to be put in place for the anticipated Amber warning from Thursday 25 November 2021. This also ensured that situational awareness was being shared between Category one agencies.
- 3.13 The DERC was supported by a Tactical lead and the Emergency Planning, Resilience and Civic Lead (EPRCL) and Assurance Manager in the first instance, as per our agreed and practiced emergency planning framework. As the incident unfolded and the timescales and impact became apparent i.e. a multi-day loss of power for parts of the city, additional resource was brought in to ensure our Tactical and Operational levels and EPRCL had sufficient resilience. In addition, the council has a growing staff volunteer pool (initiated during COVID) that we can reach out to in an emergency of this scale. This was drawn upon to respond to a mutual aid request from Aberdeenshire Council to assist in conducting welfare checks on residents.
- 3.14 A number of Council services and operational teams stood up in preparation for the anticipated Red weather warning, instigating additional staffing. Teams in roads, environmental services, RCC, arboriculture team, Countryside rangers, street cleaners, city wardens and communications and media were active in the response.

Working with Partners

- 3.15 During incidents of this nature, the Council relies upon national resilience structures and will participate in GLRP meetings which in the case of Arwen were chaired by Police Scotland who had declared a major incident. Over and above these meetings, there is a strong reliance on partnership working to benefit our response and to support others with their own challenges.
- 3.16 Aberdeen City Health and Social Care Partnership was part of the Council's Incident Management Team from its inception as it was clear that there was significant potential for our vulnerable citizens to be affected by way of power outage or inability to travel for care or receive home care. Bon Accord Care colleagues also assisted with the overall Care for People cell function as and when needed.
- 3.17 Scottish and Sothern Energy (SSEN) provided each local authority with details of customers without power, including SSEN priority customers, and this was used to check up on and support our vulnerable citizens. This is a challenging process during incidents of this scale, as partners are reliant on SSEN data which is changing constantly as engineers resolve faults and as part of that process, reveal new ones.
- 3.18 Currently the City only has two official community resilience groups (Cults and Peterculter). During Storm Arwen they worked with their communities and assisted the overall emergency response directed by partners. The Red Cross

assisted, particularly in the Shire, offering staff if required for door knocking and leaflet drops.

- 3.19 Working with the third sector and communities is key to the response as the blue light services and other category one responders are occupied and drawing on limited resources.

Debrief process

- 3.20 Some of the debriefing processes and indeed some of the elements of recovery from the storm, are still ongoing. Subsequent storms Malik and Corrie have occurred during the recovery phases and this has added extra challenge but provided an opportunity to quickly implement some of the lessons learned, which are covered in more detail below. The debrief process is key to ensuring lessons are learned and shared swiftly and to continued evolution of resilience practice within the council. Below the main features of the debrief process are described:

3.21 Aberdeen City Council

- 8th December initial “hot debrief” – this captures immediate reactions from those involved in the response efforts
- 16th December detailed debrief and presentation – this is a structured process with all parties providing in writing their reflections on what went well, what did not go well, and what improvements are required. This is then discussed with all participants and captured in a single report which sets out agreed improvement actions.
- February – a summary report to go to City Resilience Group to ensure the agreed actions are carried out and shared with the Extended Management Team for full awareness and learning.

- 3.22 A number of themes/observations were picked up during the debrief process to date and these are now set up as internal workstreams and a priority for 2022:

1. Persons at Risk Database (PARD) – this describes accessing databases which include data on pre-determined categories of vulnerable persons, for instance, those with carers, social care needs, those in areas of likely flooding. During an emergency the identified data can be extracted from one or more database from one or more partner organisation, integrated and laid over geographical information systems to allow our most vulnerable citizens to be quickly identified and supported. During all three storms, SSEN were unable to give consistently clear data. This meant that the IMT, reporting into the Care for People cell of the GLRP, was reliant on heavily manualised checks to gather relevant data, which is inefficient and labour intensive. The Emergency Planning and Resilience Lead is chairing a Task and Finish Group to oversee the development of a city PARD to completion, before next winter.

2. Power Resilience (Blackstart) City Plan - A ‘Blackstart’ event is the name for the response and recovery process following a complete (or partial) shutdown of the Great Britain electricity system, where the planning

assumption is full power restoration could take up to seven days. The timeframe to a full power cut is likely to be less than 2-minutes, meaning there will be no preparation time.

As previously reported, officers are continuing to further develop the Council's Power Resilience Plan and to dovetail with plans developed by other partners in the city. Storms Arwen, Malik and Corrie have given invaluable insight to issues and hazards picking up specific vulnerabilities unique to the City.

- 3. Regional Communications Centre** – There is a need to revise the operating model and identify alternative processes to support major incidents to increase capability and capacity for call handling.
- 4. Volunteer pool and Mutual Aid requests** – there is a clear need for improved processes around mutual aid requests (a statutory duty whereby we are required to support other responders if they require it) and the use of the Council's volunteer pool. The mutual aid process is being progressed by the GLRP Working Group as a collaborative piece of work, including the creation of a protocol, memorandum of understanding and request templates.
- 5. Community Resilience** – individual, community and business resilience is a key priority as this has shown it supports the emergency services and local authorities' emergency response when incidents of scale take place. A communication plan is currently being developed comprising social media campaigns, flyers targeting registered city volunteers and vulnerable areas of the city, as well as printed media such as posters for community centers. This is scheduled for April through to October and will cover individual resilience, community groups and business resilience. Prior to Christmas 2021 some business resilience electronic flyers were issued through Aberdeen Inspired as a test of our future strategy and these have been well received. Members will note below that the Scottish Government debrief of Arwen also pick community resilience up as a priority.

3.23 Grampian Local Resilience Partnership

- 26th January 2022 - GLRP debrief meeting was held with all partners.
- 24th February 2022 - debrief finding report is due to be presented back to GLRP. A draft has been reviewed and the findings are very similar to those above, showing that all agencies will be working towards these priority areas.
- 18th February 2022 - Care for People group debrief meeting was held with all partners, debrief findings report is due imminently.

3.24 Scottish Government

The Scottish Government published its [debrief](#) on 27th January 2022, which took account of early submissions from local resilience partnerships affected by the incident.

The table below highlights relevant recommendations from Scottish Government for local authorities, these match a number of the identified actions already being taken forward from our internal debriefs:

Scottish Government Recommendation	ACC Action
Local authorities to consider what more they can do to support and develop community resilience in their areas, and the Scottish Government review and, if necessary, expand the materials and training available to support in the establishment and support of local Community Resilience	Creation of a communication plan for individual community and business resilience during 2022. Resilience specific presentations to community councils, community groups and existing volunteers in City. Encourage, support and train groups to ensure they can be added to the Community Asset Register and have all the tools in place to have an effective resilience group and activation plan.
Local authorities to review their Command, Control and Co-Ordination arrangements for an emergency which involves the loss of both power and telecoms, and actively involve utilities companies in local planning where required to ensure linkage with national developments.	Creation of City 'Blackstart' Power Resilience Plan.
Local authorities to ensure they have adequate plans in place to allow for the strategic coordination of large-scale door-to-door welfare checks, and that these plans are tested and exercised.	Creation of City Persons at Risk Database.

Recovery

- 3.25 Recovery for the Council involves progressing our workstreams whilst arboriculture teams clean up the impacts of the storms across the city, removing fallen trees and stabilising those which are vulnerable.
- 3.26 Teams have been dealing with the huge number of incident reports and enquiries made in relation to fallen trees and the damage they have caused. A service 'priority' is allocated to each incident (each incident can include multiple trees).
- 3.27 This priority is based on site inspection and any other information gathered:

Tree Priorities	
Priority 1	Tree blocking road.
Priority 2	Tree still dangerous – hanging branches, large splits, moving roots.
Priority 3	Tree blocking access i.e. front door, driveway, path.
Priority 4	Tree partially blocking i.e. access in and out but still causing inconvenience.
Priority 5	Trees down in back gardens.
Priority 6	Trees down in grass areas – public parks, schools etc.
Priority 7	Branches down on grass footways, paths etc.
Priority 8	Other works

- 3.28 The focus for the service is the priority 1, 2 and 3 trees. These priorities account for 92 of the current incidents logged. 75% of these incidents are now complete. Most roads in the city are now passable, some are partially blocked but are coned and operating. Reports continue to come in which will increase the incident numbers further in the weeks ahead.
- 3.29 In the short to medium term, and until all damage can be assessed, work on all but the most dangerous trees on the arboricultural team's existing, routine work programmes has been stopped. Although it will continue to be prioritised, high risk areas of work such as emergency tree work and dealing with Dutch Elm will be severely affected. It is estimated that it could take up to 12 months to clean up, and it could take years for Aberdeen's trees stock to recover from the storms. Many areas of Scotland have been impacted by the storms and this has meant a significant demand being placed of the arboriculture industry. The amount of timber now in need of processing across the north east will also impact on the overall clear up process and timeline, as well as the demand on specialist forester machinery required to remove the larger trees and clear woodland.
- 3.30 The Council has recognised the severity of the damage caused by the storms and the demand this has placed on Environmental Services, both short term, in the clearing up work, but also the longer-term management and maintenance of Aberdeen's trees. The City Growth and Resources Committee on 3 February agreed additional funding for teams to deal with the storm damage caused by Storms Arwen, Malik and Corrie. The service is currently working up an action plan for the best use of this funding. This will include additional resources for the tree squad, subcontracted work for clearing tree belts and woodland, and tree planting.

- 3.31 With the likelihood of increasing weather events of this nature, as well as the lessons learned from COVID and the need to continue to prepare the city for events such as Blackstart, there is a recognition of the need for additional resource in emergency planning within the Assurance Team in Governance. Options are being explored to ensure that we increase our resilience in this area as a priority, so as to ensure we are able to bring some of these major workstreams to completion before next winter. This will be managed from within existing budgets.

Conclusion

- 3.32 The priorities being taken forward, following the debriefs internal and external, over the next 12 months and where practicable before the start of the next winter period are as follows:
1. Completion of a Power Resilience Plan for the City which dovetails with partners' plans;
 2. Further development of community and business resilience in the City to ensure that our communities and businesses are as resilient as possible during future weather events of this nature, as well as other emergencies;
 3. Creation of a Persons at Risk Database for the City.
- 3.33 At the time of writing, the Council has concluded its response to Storms Malik and Corrie, with a debrief held on 9th February. Across the Grampian area over 40,000 homes lost power, with associated mobile phone coverage and private water supply issues. The City had approximately 2000 properties off power at the peak of the storms for a number of days. The priority throughout was the vulnerable in our communities and once again we worked closely with SSEN and AHSCP to identify and support these individuals. Whilst each of these storms had a lesser overall impact on infrastructure than Arwen, the impact of a double storm tested our resilience once more. Sadly during the height of Storm Malik, a tree fall did lead to a fatality in the city which is a tragic reminder of the threat to life during events of this nature.
- 3.34 Arwen and most recently Malik and Corrie storms have reinforced the good working practices of our emergency response teams, generic emergency plan and partner relationships. Our emergency response structure of strategic, tactical and operational works extremely well allowing the right people to make the decisions, attend the appropriate meetings and take action, it is efficient and effective.
- 3.35 Many of the initial learnings from Arwen were taken forward into these most recent storm responses, as well as underlining what we had identified as a key gaps, such as need for a City PARD, wider community resilience teams, all of which are in train and have priority working groups in place.

4. FINANCIAL IMPLICATIONS

There are no direct financial implications arising from this report.

6. LEGAL IMPLICATIONS

There are no direct legal implications arising from this report. The report provides an outline of the Council's response as a Category 1 responder within the terms of the Civil Contingencies Act 2004.

7. MANAGEMENT OF RISK

Category	Risk	Low (L) Medium (M) High (H)	Mitigation
Strategic	Lack of PARD and Power Resilience Plan going forward into another major incident or winter 22/23.	M	<p>Creation of a persons at risk database (PARD) for Aberdeen City.</p> <p>Creation of a Power Resilience Plan for Aberdeen City.</p> <p>Prioritise creation of Community resilience groups.</p>
Compliance	Risk of non-compliance with civil contingencies legislation and failure to provide an adequate emergency response.	L	<p>Training and exercising of Emergency Response Team.</p> <p>Generic Emergency Plan and supporting plans and activation packs.</p>
Operational	<p>Lack of appropriate emergency equipment.</p> <p>Lack of trained operational and resilience staff.</p>	M	Implementation of wider radio network and portable generators for key operational emergency teams or locations.
Financial	Risk that continuous weather events will continue to place pressure on operational service budgets particularly in recovery stages.	L	Budgetary provision approved by City Growth and Resources Committee on 3 rd Feb.
Reputational	Risk that communities and citizens will not trust	L	Public comms plan, speed of tidy up operation

	the Council to adequately respond.		
Environment / Climate	Risk that continuous weather events will continue to place council services and responding agencies under considerable pressure.	M	<p>Creation of a persons at risk database (PARD) for Aberdeen City.</p> <p>Creation of a Power Resilience Plan for Aberdeen City.</p> <p>Prioritise creation of Community resilience groups.</p> <p>Training and exercising of Emergency Response Team.</p> <p>Generic Emergency Plan and supporting plans and activation packs.</p>

8. OUTCOMES

- 8.1 The recommendations contained within this report have no direct impact on the Council's Delivery Plan however if emergency response is not effectively managed and risks mitigated, there could be an impact on the delivery of organisational objectives.

Design Principles of Target Operating Model	
	Impact of Report
Organisational Design	The Council's organisational structure needs to be flexible during emergency response to enable continuity of service delivery in key areas.
Governance	The Council's emergency governance structures have once again been tested throughout the emergency response and proved to be effective.
Process Design	The lessons learned section details adjustments to process as a result of this event.
Technology	Development of a Persons at Risk Database will improve the efficiency and reliability of future responses.

Partnerships and Alliances	The Council plays a key role at the GLRP and its sub-groups where appropriate.
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9. IMPACT ASSESSMENTS

Assessment	Outcome
Equality & Human Rights Impact Assessment	Full EHRIA not required
Data Protection Impact Assessment	Not required
Duty of Due Regard / Fairer Scotland Duty	Not applicable

10. BACKGROUND PAPERS

1. Internal debrief documentation and interim storm report from LRP
2. Scottish Government Debrief published 27/1/2022
[Storm Arwen review - gov.scot \(www.gov.scot\)](http://www.gov.scot)

11. APPENDICES

None.

12. REPORT AUTHOR CONTACT DETAILS

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