April 29, 2025 High Wind Event

Pittsburgh Office of Emergency Management & Homeland Security

Pennsylvania Emergency Management Agency
After-Action Quick-Look Report (QLR)

PREFACE

This Post-Incident review documents the operational response, coordination efforts, and identified areas of strength and improvement associated with the high wind event that impacted the City of Pittsburgh on April 29th, 2025. The purpose of this review is to provide an analysis of the event, focusing on interagency coordination, resource deployment, communication, public safety operations, and situational awareness.

By evaluating what worked well and what challenges were encountered, this document aims to inform future planning efforts, enhance organizational readiness, and strengthen the City's ability to respond effectively to similar incidents. The insights gained through this review will support continuous improvement across departments and partner agencies, reinforcing Pittsburgh's commitment to preparedness, resilience, and public service.

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SECTION 1: EVENT OVERVIEW

On Tuesday, April 29, 2025, a fast-moving, high wind storm impacted Pittsburgh and surrounding areas, causing widespread damage and disruption. The event was driven by a long-lived, intense line of thunderstorms, known as a “bow echo”, that developed over southern Ohio in the late morning and intensified as it moved into eastern Ohio and western Pennsylvania by the afternoon. Although the system resembled a derecho, the National Weather Service determined it did not fully meet the formal criteria.

As the storm tracked through the region, wind gusts between 70 and 90 miles per hour were recorded. Pittsburgh International Airport measured a gust of 71.3 mph, the third strongest ever recorded at that location. The hardest-hit area was central Allegheny County, including the City of Pittsburgh.

Hundreds of thousands of customers lost power, with Duquesne Light estimating and communicating that full restoration could take five to seven days in some areas. Winds knocked down trees, toppled power lines, blocked roadways, and caused structural damage, including roofs torn from buildings. Despite heavy rainfall, flooding remained limited due to dry conditions and the storm’s rapid movement.

Emergency services were overwhelmed by the volume of calls. Allegheny County’s 9-1-1 system received up to 1,000 calls per minute at the storm’s peak, forcing calls to be redirected to surrounding regional 9-1-1 centers. One person in the City was killed by electrocution from downed wires, and two firefighters were injured while responding to a building fire during the storm.

ACTIVATION/ EVENT DATES

April 29, 2025 – May 6, 2025

PARTICIPATING ORGANIZATIONS

- Office of the Mayor
- Public Safety Administration
    - Office of Emergency Management & Homeland Security (OEMHS)
    - Office of Public Safety Technology
    - Office of Community Health & Safety
    - Public Information Office (PIO)
- Pittsburgh Bureau of Emergency Medical Services
- Pittsburgh Bureau of Police
- Pittsburgh Bureau of Fire
- Pittsburgh Department of Parks and Recreation
- Pittsburgh Department of Public Works
- Pittsburgh Department of Mobility & Infrastructure
- Pittsburgh Department of Innovation & Performance
- Pittsburgh Department of Permits, Licenses and Inspections
- Pittsburgh 3-1-1
- Allegheny County Emergency Management
- Allegheny County Health & Human Services
- Wilkinsburg Boro
- Pittsburgh Water and Sewer Authority
- Duquesne Light Company
- Team Rubicon
- Red Cross of Southwestern PA
- Salvation Army Western PA Division

SECTION 2: SUCCESSES

Clear Chain-of-Command and Protocols:
A virtual Emergency Operations Center (EOC) was established on April 29th immediately following the storm's impact to coordinate response and recovery operations across multiple departments and private sector partners. The EOC remained in use throughout the recovery phase.

The City of Pittsburgh through Resolution #405 has adopted the National Incident Management System (NIMS) as the basis for all incident management within the City. The City of Pittsburgh through Resolution #406 has implemented the City of Pittsburgh Emergency Operations Plan (EOP). These resolutions provided a common understanding of personnel's roles and responsibilities during the storm and subsequent response and recovery.

To support response and recovery efforts, Mayor Ed Gainey issued a local disaster emergency declaration on April 30, 2025, the day following the storm. The declaration enabled the City to activate emergency powers, expedite the procurement of resources, and coordinate more effectively with county and state partners. It also allowed for greater flexibility in deploying personnel, securing equipment, and accessing potential reimbursement for damages and response costs. The declaration remained in effect as city departments worked to assess damage, clear debris, and restore essential services until expiring on May 31st.

Public Communication:
The Office of the Mayor's Director of Communication convened daily press briefings with department directors and utility representation to provide up-to-date information to the public on the progress of storm recovery operations.

Department of Public Safety Public Information Officers (PIOs) provided storm-related information through various social media platforms.

Developed Plans to Solve Issues:
Collaboration within the EOC allowed for the creation of strategies to address challenges. OEMHS, the Bureau of EMS, and Allegheny County Emergency Services worked on a process to distribute oxygen to patients at their home in order to reduce the number of hospital transports due to lack of power for personal oxygen generators. Private oxygen suppliers were contacted to obtain additional oxygen cylinders in order to provide for the refill of empty cylinders. Additional EMS personnel in auxillary vehicles were placed on-duty to respond to home-oxygen related 911 calls, perform medical assessments, provide full oxygen cylinder(s) if warranted, and track distribution.

OEMHS generated an online GIS-based damage assessment survey tool that was distributed to all City of Pittsburgh field crews and the Red Cross. The survey allowed field personnel to capture location information, photos, and basic descriptions of damages present, with the data then able to be reviewed at the EOC in real-time to assist with prioritization of resources.

The Bureau of Fire and Department of Public Works (DPW) formed a task force to assess the safety of sites with outstanding storm-related work orders. Fire personnel used hot stick voltage detectors to verify power lines were de-energized, allowing DPW personnel to clear debris.

Western PA Region Voluntary Organizations Active in Disaster (VOAD) Utilization:
OEMHS coordinated with multiple VOAD members to provide additional assistance to the public.

Red Cross of Southwestern PA augumented damage assessment teams and distributed meals to residents with access and functional needs.

Salvation Army Western PA Division provided clean-up kits and distributed meals.

At the request of the City of Pittsburgh, Team Rubicon deployed thirty volunteers for four weeks and completed over two hundred work orders clearing debris from private property, focusing on higher socially vulnerable populations. This effort expanded across Allegheny County.

High Priority Placed on Restoration of Community Lifelines:
OEMHS' previously established relationships with utility providers facilitated efficient two-way communications, including representation in the virtual EOC, and prioritization of restoration for key City facilities including public safety and medical facilities.

DPW prioritized assigning crews to clearing debris from and reopening transportation corridors after receiving confirmation of de-energized power lines.

Coordination with Non-Public Safety City Departments:
Additional critical assistance was provided to the virtual EOC in support of storm response and recovery operations by Public Works, Innovation and Performance, Permits, Licenses, & Inspections, Mobility and Infrastructure, and Parks & Recreation.

SECTION 3: AREAS FOR IMPROVEMENT

Traffic Control Restoration:
DOMI's on-hand supply of stop signs provided coverage for five intersections, leaving multiple intersections with traffic signals affected by power outages without any traffic control devices. Traffic signals without power were also difficult for drivers to see at night. Allegheny County Public Works and PennDOT resources were not leveraged to provide back-up traffic control devices at those intersections.

Hardening of City Facilities:
Delays in utility service restoration occurred at several City facilities due to inconsistancies in service addresses listed by utility company versus physical addresses. Pictures of meters with identification numbers were required to perform a work-around solution.

Utility provider request to submit outages via representitives at each individual facility created confusion and led to multiple outage submissions per facility or none at all. A comprehensive list of City facility outages was difficult to maintain for situational awareness.

Majority of City facilities either do not have generators or a connection to accept a generator in order to be able to provide power to the site for core operations.

Lack of Non-Public Safety Department Disaster Resilience:
Difficulty was experienced in realiging daily tasks to support respose activities. Staff were uncertain how to adjust their routine responsibilities to effectively support disaster response operations.

Deficiencies in both basic Incident Command System (ICS) and Continuity of Operations (COOP) knowledge were identified, leading to uncertainty regarding information flow structure and operational procedures during emergency response.

The personal resiliency and preparedness of some City employees was found to be limited. Individuals were unable to report to work due to personal obligations such as caring for family members, while others were unprepared to continue operations remotely during power outages. As such numerous city employees failed to report to City facilities where power and resources were available.

Resource Management:
Currently, the fleet contractor has one large fuel truck and one driver with CDL able to operate the vehicle. The driver was on vacation during this event causing delays with fuel deliveries for back-up generators. Additionally, fleet representation was not included in the virtual EOC.

As multiple requests for resources were received through various means (email, calls, texts, Teams chat, etc.), a comprehensive list with prioritization and status was difficult to maintain for situational awareness.

Intake of Public Information:
With no information sharing capabilities from the 311 system to the virtual EOC or OEMHS, obtaining information from the public was difficult.

Independent Service Provider Coordination:
Delays in DPW road clearance and work order completion occurred to due to private independent contractors placing their own barricades around fallen trees and other hazards. DPW crews believed these barricades to be safety barriers placed by utility providers and and did not bypass them due to safety concerns.

Vegetation Management:
DPW Foresty Division was understaffed at the time of the storm resulting in a reduction in the ability to efficiently perform vegetation management and removal.

SECTION 4: RECOMENDED ACTIONS / CONCLUSION

Traffic Control Supply Project:
Establish a planning team to research temporary stop signs and determine the appropriate amount of extra traffic control supplies/temporary stop signs to maintain on-hand. Research reflective material for use on traffic signal edges. Develop procedure to deploy temporary stop signs when necessary. Establish connection with Allegheny County Public Works and PennDOT for traffic control resource requests.

Generators for Intersections Project:
Establish a planning team to determine the feasibility of retro-fitting intersections with connections for generators to run traffic signals and develop a prioritized list of intersections for generator deployment.

City Facilities Utility Project:
Establish a planning team to create a master list of City facilities with correct addresses and utility information, including all meter identification numbers. Submit updates of addresses to utility providers as necessary. Identify primary and back-up positions responsible for facility outage reporting per department/bureau and communicate to utility providers.

Generators for Facilities Project:
Establish a planning team to determine the feasibility of installing generators or generator connections at critical City facilities.

Vegetation Management Project:
Fully staff DPW Forestry Division and create a prioritized list of vegetation management work orders. Proactivly remove dead/compromised vegetation near critical infrastructure.

Fleet Contract Revision:
Revise contract to include a back-up driver with CDL for the fuel truck. As well as adding language regarding emergency events that the fuel truck and driver will support.

OEMHS Projects:
Formalize resource/request prioritization and tracking procedure.

Research options for a common operating picture platform.

Research options for a public information intake system.

Develop schedule to provide Incident Command System (ICS) and Continuity of Operations (COOP) trainings to non-Public Safety departments within the City. Provide assistance with COOP plan development. Provide assistance in aligning disaster support role job duties along with Human Resources. Provide assistance with enhancing City employee personal resiliency.

Conclusion:

The April 29, 2025 high wind event significantly tested the City of Pittsburgh's operational readiness, interdepartmental coordination, and emergency response capabilities. While the response demonstrated clear strengths, including activation of a virtual Emergency Operations Center, effective public communication, and strong partnerships with voluntary organizations, this review has also revealed critical areas requiring improvement.

Deficiencies in equipment readiness, employee preparedness, and continuity of operations planning contributed to delays in recovery and reduced operational effectiveness. The event highlighted vulnerabilities in resource management, facility resilience, and the ability of non-public safety personnel to adapt to disaster roles.

The recommended actions outlined in this document provide a path forward to strengthen the City's ability to prepare for, respond to, and recover from future emergencies. Through targeted projects, policy revisions, training, and enhanced interagency collaboration, the City of Pittsburgh can build a more resilient organization and community.