NACAA
national association of clean air agencies

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RESOURCES FOR CLEAN AIR AGENCIES

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# Hurricanes & Mutual Aid

Although hurricanes pose clear immediate public safety risks, clean air officials may also face unexpected public health responsibilities as near-term recovery and longer-term restoration and cleanup occurs. This factsheet draws on lessons from recent storm responses to highlight issues for clean air agencies to consider, and to provide ideas for where to turn to for support.

## What to consider before an event:

Know your own authorities. Experience from Sandy-affected states showed the importance of understanding the authorities they had to monitor, report, and take action, as well as the threshold for doing so.

Inventory your resources & identify key critical infrastructure. State Energy Assurance Plans (which are generally created by state energy offices) may help anticipate trouble spots. Find your SEO at www.naseo.org.

Protect equipment. Some sensitive equipment like air monitoring stations should be protected. Ensuring redundancy in data may also be useful – before an event may be a good time to run data backups for offsite storage as well.

Get into the reporting loop. Being a part of the information flow of electric restoration, transportation interruptions, and other infrastructure communications may help you be prepared to understand where monitoring or other actions would be useful.

## Considerations during the event:

During and immediately after the storm, air quality issues may be amplified, for example:

Airborne particulates like sand and other debris may pose a health risk - a primary concern for monitoring.

The use of diesel fuel may increase for backup generation and other equipment used during the emergency. This may need to be monitored.

Personnel safety is paramount.

Monitoring equipment may be needed during and after the event, a consideration balanced by the need to protect it from damage.

## What to consider after the storm:

Air quality monitoring may need supplemental stations in areas of concern, or may be subject to different conditions post-storm.

Monitoring of particulates may yield especially abnormal results, so it may be useful to compare monitoring to previous years' data to understand variances from the norm.

Supplemental monitoring near affected areas or near facilities whose operations are exceptional – such as refineries or other industrial facilities engaged in startup or shutdown, incinerators for woody, solid or sludge waste, or facilities damaged by the event – may be warranted. This may increase equipment requirements from the norm. For example, following Sandy in New Jersey, fuel transfer activities at marine loading facilities were granted waivers but the sites were monitored.

Pollutants from fires and emergency situations may also lead to public health concerns. Coordinating with emergency managers may be very valuable in identifying monitoring requirements and they may be important recipients of air quality data to protect responder health.

New Jersey's experience with Sandy included widespread destruction of buildings, and to deal with the air quality implications, the state developed guidance on activity related to demolition, providing protocols for "House down"; "Unsafe to Enter" etc. This guidance

included steps to be taken in different situations to protect public health and minimize emissions.

Water damage to buildings and property may increase the incidence of concern about mold. In addition, the public health impacts of asbestos and other debris related to destruction or demolition of buildings may warrant developing protocols for use during recovery.

New Jersey discovered that Refrigerants may be an air quality concern as storm damage, demolition, and restoration may result in unintended releases of ozone depleting substances.

Woody waste, wet debris, facility startups, longstanding water, and other storm related activity may yield odor complaints.

Community notification was more important than ever in the wake of the storm, and robust protocols for doing so were developed in order to protect public health and keep citizens informed.

Public communication is essential. Clear communications about the issues, what they mean to health, and how to mitigate will be useful. NY recommended giving simple but accurate information, and what to do (as in, masks for almost any demolition or cleanup work).

## Regulatory activities:

Immediately following an event (or as it is occurring) clean air agencies may be asked to produce waivers and other actions reducing regulatory oversight. A number of regulatory waivers may be issued to allow for different controls to be operated, authorizing longer trucking hours, restoration activity without normal decals, etc. The State of New York also issued waivers for decals for cleanup equipment after Sandy. Good samples for resources for waivers are available from Texas' TCEQ site at http://bit.ly/2xoWJQO

New Jersey took other regulatory actions during Sandy restoration, providing "No Action Assurance" to facilities that experienced air pollution control equipment damage or those facing long term power outages, and "Compliance Advisories" for facilities engaged in unusual but on balance beneficial activities, such as for increased use of sewage sludge incinerators because wastewater treatment plants were damaged or flooded. This guidance is available at http://www.nj.gov/dep/special/hurricane-sandy/docs/demolition-guidance.pdf or http://bit.ly/2gQ4OXh

Expediting cleanup and protecting public heath will mean a balance of sensible implementation strategies. This requires good communications among the government entities managing the response.

## Clean air communities & mutual aid:

As Hurricane Harvey was inflicting destruction, NACAA members were abuzz with offers to help. NACAA intends to develop networks that enable clean air agencies to help each other in crisis and provide mutual assistance.

Moving forward, NACAA will serve as a hub for its members to help each other, including:

Helping agencies with needs connect with spares or other equipment to supplement existing supplies, to meet increased monitoring requirements, or to stand in for damaged equipment. NACAA will explore creating a spares inventory in the future for critical equipment if there is member demand.

Through our email listservers, conference calls, and webcasts, we will continue to play the role connecting people with questions to people who have answers.

For agencies unable to provide their own data hosting or online public communications, several members offered in recent storms to provide hosting service from afar. NACAA will explore this as a piece of its mutual assistance activities going forward.

Many of these activities will be useful outside the context of hurricanes or other emergency conditions as well.

## More reading & resources

US EPA Hurricane Response: http://bit.ly/2w1vc5O

New Jersey DEP resources: http://bit.ly/2xUSPPF

Texas TCEQ: http://bit.ly/2xoWJQO

New York DEC: http://on.ny.gov/2wfsklX

New York City After Action Report: http://on.nyc.gov/1gEKOit

CONTACT NACAA AT 202-624-7864 FOR MORE INFORMATION, OR ONLINE AT WWW.4CLEANAIR.ORG