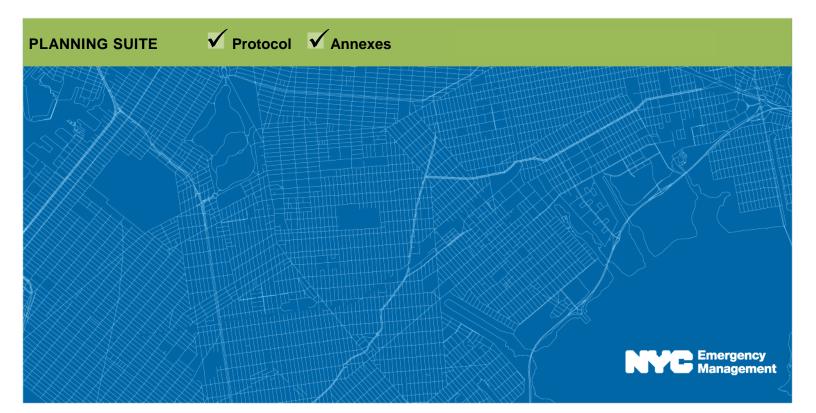


#### **NATURAL HAZARDS**



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NOTE: This Protocol replaces Operational Strategy 2: Cooling Centers in the New York City Heat Emergency Plan (June 21, 2007), but does not change any operational responsibilities found in the original document. All decisions regarding the activation of New York City's Heat Emergency Plan and its other operations are outside the scope of this document.

# **Activation Quicksheet**

This sheet helps the Human Services Emergency Support Function (ESF) Coordinator quickly understand the goals, procedures and tasks associated with any Cooling Center activation. Full details are found beginning on page 12.

## **Opening Cooling Centers**

The operational goal of Cooling Centers is to provide a wide range of free, public facilities with air conditioning throughout New York City that can be used by those seeking relief from the heat. In meeting this objective, it's important to remember:

- ✓ Notify Cooling Center Partners (New York City Department for the Aging, New York City Housing Authority, Salvation Army Greater New York Division, New York Public Library, Brooklyn Public Library, Queens Library and New York City Department of Parks and Recreation) at least 24 hours prior to activation and request facilities for use as Cooling Centers;
- Requests for extended hours should be made at least one day in advance;
- Notifications for weekend activations should be made by Thursday, if possible;
- Preference should be given to Cooling Centers that provide accessibility to people with disabilities;
- ✓ Human Services provides GIS with the list of open and closed Cooling Centers and manages all information that goes into Cooling Center Finder.

# **Monitoring Cooling Centers**

While Cooling Centers are activated the goal is to assure that the public is receiving accurate information about open Cooling Centers. To meet this objective:

- Cooling Center Partners must notify OEM of any changes to locations that make them unusable as Cooling Centers;
- Human Services will provide updates to open locations and facility information to GIS;
- ✓ GIS will promptly update the information in the Cooling Center Finder.

### **Emergency Messaging**

The public should be notified of Cooling Center operations and ways to stay safe from the heat through public messaging. The target audience is older adults, people with disabilities, and people with pre-existing medical conditions or other vulnerabilities.

- ✓ An Advance Warning System email message can be sent to all users;
- ✓ An Advance Warning System Conference Call can be held each day of the heat event;
- Notify NYC messaging;
- ✓ External Affairs and the Public Information Officer support messaging efforts.

### **Preparedness Quicksheet**

This sheet helps the Human Services Unit quickly understand the goals, procedures and tasks associated with Cooling Center preparedness. Full details are found beginning on page 26.

### **Identifying Cooling Center Locations**

Each spring, Human Services works with GIS to build and update Cooling Center lists for the summer. The goal is to have a sufficient number of Cooling Center locations available to the public during a heat emergency. In selecting potential facilities for use as Cooling Centers, the following is considered:

- Cooling Centers must be free and open to people of all ages;
- Air conditioning must be provided in areas where it is appropriate for people to gather;
- Preference should be given to places already serving as natural gathering places in the community.

Once information about each facility is collected from Cooling Center Partners:

- Facility information is put into the Cooling Center Finder in preparation for the summer;
- Locations are mapped;
- Accuracy of information is continuously monitored and maintained.

### **Preseason Messaging**

Information about heat-related hazards and the availability of Cooling Centers during heat emergencies is made available to special needs service providers prior to the start of summer.

- An Advance Warning System email message is sent to all users;
- A pre-season Advance Warning System Conference Call is held to provide an overview of the New York City Heat Emergency Plan, the Cooling Center Protocol and AWS procedures.

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### **Protocol Structure**

The Protocol is divided into four sections:

1.	Overview	3.	Preparedness Phase
2.	Activation Phase	4.	Annexes

**Color** is used through the Protocol to help differentiate each of the sections:

<ul> <li>The Overview section is blue. It should be read by:</li> <li>Anyone looking for the key decisions that guide the operation</li> <li>Anyone looking for background information on the operational mission</li> </ul>	<ul> <li>The Activation section is red. It should be read by:</li> <li>Anyone tasked with overseeing the opening and running of Cooling Centers</li> <li>Anyone interested in learning about New York City's Cooling Center operational process</li> </ul>
<ul> <li>The Preparedness section is green. It should be read by:</li> <li>Anyone tasked with overseeing the maintenance of Cooling Center facility information</li> <li>Anyone interested in learning about facility selection and obligations</li> </ul>	<ul> <li>The Annex sections are blue. These sections should be read by:</li> <li>Anyone in need of additional support documents</li> </ul>

There are six **Partners** in this document:

1. Coordinating Agency	4. Potential Staffing Assistance Agencies
2. Cooling Center Partners	5. Advance Warning System Partners
3. Potential Cooling Center Partners	6. Supporting Agencies

Overview boxes provide Partner duties for each **phase**:

Checklist boxes provide further Partner task details for each **procedure** in the phase:

<ul> <li>Partner Boxes</li> <li>Provided for Each Phase</li> <li>⇒ Provide definitions of Partner names used throughout the document</li> <li>⇒ List major obligations and tasks the Partners undertake for each operational phase</li> <li>⇒ Explain how different Partners work together during each operational phase</li> </ul>	<ul> <li>Partner Specific Tasks</li> <li>Provided for Each Procedure Section</li> <li>Detailed operational information to guide each Partner in achieving their expected tasks for a specific procedure.</li> <li>List information in general order of tasks, in checklist form, for ease of use.</li> </ul>
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### **Plan Map**

Section	Description	Contents
Overview	Snapshot of the entire operation and its purpose	This section explains the operation's key decisions and actions, along with their timing.
Activation Phase	Opening and managing Cooling Centers during Heat Emergencies	This section details the work to effectively open and maintain a system of Cooling Centers. It consists of three procedures: • Opening Cooling Centers • Monitoring Cooling Centers • Emergency Messaging It also contains information about: • Initial notifications • Maintaining the list of open Cooling Centers • Extended hours of operation • Census data • Deactivation
Preparedness Phase	Identifying Cooling Centers and managing information in preparation for the summer	<ul> <li>This section details the preseason work to build and maintain a system of Cooling Centers. It consists of two procedures: <ul> <li>Identifying Cooling Center Locations</li> <li>Preseason Messaging</li> </ul> </li> <li>It also contains information about: <ul> <li>Obligations of Cooling Center Partners</li> <li>Preferred characteristics of Cooling Center facilities</li> </ul> </li> </ul>
Annexes	Supporting documents for Partners and staff	<ul> <li>A – Rules of Operation for Cooling Centers</li> <li>B – Cooling Center Finder</li> <li>C – Human Services Heat Plan Checklist</li> <li>D – GIS Support Tasks for the Cooling Center Finder</li> <li>E – Data Collection Samples</li> <li>F – Heat Safety Tips</li> </ul>

## **Overview**

Cooling Centers are air-conditioned facilities open to the public for free during Heat Emergencies in New York City.

#### This Protocol:

- Guides New York City's operational response of providing Cooling Centers to the  $\checkmark$ public during Heat Emergencies;
- Describes the different roles and tasks required for a successful Cooling Center operation;
- Details the preparedness tasks required to maintain a robust system of Cooling Centers; and
- Replaces Operational Strategy 2: Cooling Centers in the New York City Heat  $\checkmark$ Emergency Plan, but does not change any operational responsibilities found in the original document.

All decisions regarding the activation of New York City's Heat Emergency Plan and its other operations are outside the scope of this document.

# Organization

The Cooling Center Protocol is organized into two operational sections: Activation and Preparedness.

Red Section Activation         ⇒ Identifying and activating event-specific Cooling Center locations         ⇒ Monitoring Cooling Center operations         ⇒ Notifying the public of Cooling Center operations         ⇒ Triggered by activation of New York City Heat Emergency Plan; up to two days before release of a National Weather Service heat product	<ul> <li>Green Section Preparedness</li> <li>Compiling a master list of pre-identified cooling center locations from Cooling Center Partners</li> <li>Mapping all Cooling Center locations</li> <li>Updating Cooling Center Finder application</li> <li>Distributing pre-season messaging to partner agencies through the Advance Warning System and other avenues of communication</li> <li>Completed annually by May 1</li> </ul>
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Additionally, these sections are followed by annexes that support the Protocol.

### **Mission**

The objectives of a Cooling Center Operation are to:

- Provide the public with free and open Cooling Centers for the length of any Heat Emergency in New York City;
- Open a sufficient number of Cooling Center locations throughout the City to limit the distance traveled by the public;
- Operate Cooling Centers for hours that reflect the peak heat forecast;
- Distribute public information about the availability of Cooling Centers, heat hazards, and the negative health impacts of extreme heat; and
- Encourage use of Cooling Centers and air conditioning by the public during Heat Emergencies.

### Basis

Heat Emergencies can cause health-related illness or death

Cooling Centers serve people that do not have air conditioning available to them during Heat Emergencies and aim to prevent health-related illness or death.

#### During extreme heat:

periods of

- Heat-related emergency department visits increase;
- Heat-related EMS calls rise over expected levels; and
- Heat-stroke deaths occur.

Air conditioning is the most important way to protect at-risk individuals.

Heat adversely effects New York City's most vulnerable residents

The use of Cooling Centers is targeted toward vulnerable individuals, as well as any New Yorker who seeks relief from extreme heat.

#### The use of Cooling Centers is encouraged for at-risk individuals including:

- Older adults, especially those who are 65 years of age or older;
- Individuals with chronic medical conditions, especially cardiovascular disease, diabetes, obesity, and substance abuse; and
- Individuals living in high poverty neighborhoods, especially those without home air conditioning or who cannot afford to use it.

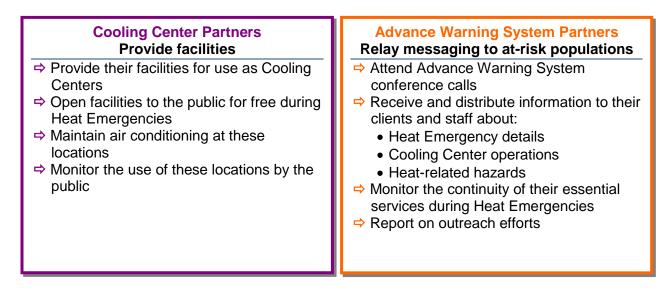
New York City Heat Emergency Cooling Center Protocol

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## **Key Partnerships**

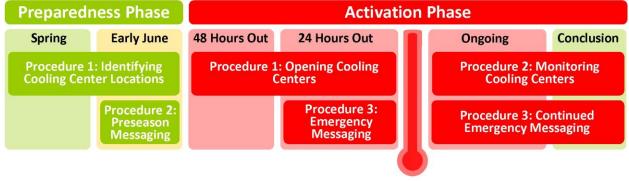
Two types of partners are essential for effective Cooling Center operations: **Cooling Center Partners** and **Advance Warning System Partners**. Cooling Center Partners ensure designated locations are cool; Advance Warning System Partners ensure that at-risk populations can avail themselves of Cooling Centers.



Various City agencies and non-profits undertake both of these roles and responsibilities, which are described in detail in each section of this Protocol, along with additional partnership roles. Advance Warning System Partners are defined by the Special Needs Advance Warning System Plan.

# **Timing of Procedures**

The timing of the procedures contained in this document is as follows:



**Heat Emergency** 

### **Key Decisions and Actions**

Key Decisions and Actions related to the Cooling Center operation are detailed in Table 1 below.

Table 1 – Key Decisions and Actions

Phase/ Trigger	Actions	Responsible Agencies	Description
Preparedness Phase (Spring Season)	1. Identifying Cooling Center Locations	OEM, Cooling Center Partners (NYC Dept. for the Aging, NYC Housing Authority, Salvation Army Greater New York Division, New York Public Library, Brooklyn Public Library, Queens Library, NYC Parks and Recreation)	<ul> <li>Agencies select locations for potential use as Cooling Centers and provide facility information to OEM (Specific agency responsibilities are found in Table 2 on p. 28)</li> <li>OEM creates lists and maps of potential Cooling Centers and updates the Cooling Center Finder application</li> </ul>
<b>Prepared</b> (Spring	2. Preseason Messaging	OEM, Advance Warning System Partners	<ul> <li>OEM distributes heat safety tips through the Advance Warning System by May 15</li> <li>OEM conducts an Advance Warning System Conference Call to discuss heat emergencies and Cooling Centers in early June</li> </ul>
New York City Activates)	1. Opening Cooling Centers	OEM, Cooling Center Partners	<ul> <li>OEM requests Cooling Center locations from Cooling Center Partners</li> <li>Cooling Center Partners select locations to be used as Cooling Centers and provide facility information to OEM</li> <li>OEM creates lists of open Cooling Centers</li> <li>OEM activates the Cooling Center Finder</li> </ul>
Activation Phase (National Weather Service issues Heat Product for New York City and the New York City Heat Emergency Plan Activates)	2. Monitoring Cooling Centers	OEM, Cooling Center Partners	<ul> <li>Cooling Center Partners immediately notify OEM of any changes to facility lists (e.g., changes in hours, malfunctioning air conditioning)</li> <li>OEM continuously updates data in Cooling Center Finder</li> <li>Cooling Center Partners provide census numbers, when applicable</li> </ul>
A (National Weather Servic and the New York C	3. Emergency Messaging	OEM, Advance Warning System Partners	<ul> <li>OEM sends out Advance Warning System messages with Cooling Center and heat safety information</li> <li>OEM conducts regular Advance Warning System Conference Calls</li> <li>OEM creates press releases and 311 scripts, updates website and social media, and sends Notify NYC messages</li> </ul>
Deactivation (No Heat Product for NYC)	Turning off Cooling Centers	OEM, Cooling Center Partners	<ul> <li>Cooling Center Partners demobilize their facilities as Cooling Centers</li> <li>OEM turns off the Cooling Center Finder</li> </ul>

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## **Operations Timeline**

Actions Timeline	Preparedness Phase		Activation Phase			
	- repareuness r hase		Activation Phase			
Actor	Spring	Early June	48 Hours Out	24 Hours Out	Ongoing	Conclusion
Human Services ESF	<ul> <li>Request Cooling Center locations from partners</li> <li>Monitor facility numbers and gaps</li> </ul>	<ul> <li>Finalize Cooling Center lists</li> <li>Send AWS heat tips</li> <li>Hold preseason AWS call</li> </ul>	<ul> <li>Notify Cooling Center Partners of potential Heat Emergency, if possible</li> </ul>	Confirm Cooling Center activation     Confirm Cooling Center lists     Send AWS message	Monitor Cooling Center status     Conduct AWS Call     Send AWS message	<ul> <li>Notify Cooling Center Partner of Cooling Center closure</li> </ul>
National Weather Service			• Monitor forecasts for potential heat emergency	<ul> <li>Issue Heat Product for NYC in anticipation of extreme heat</li> </ul>	Issue additional heat products for NYC     Monitor forecasts	<ul> <li>Cease issuing by products for by products for by the products for by the</li></ul>
Cooling Center Partners	<ul> <li>Provide Cooling Center locations</li> <li>Provide facility information</li> </ul>	<ul> <li>Confirm Cooling Center lists</li> <li>Monitor facility data</li> </ul>	<ul> <li>Begin notifying locations and staff of potential Heat Emergnecy</li> </ul>	<ul> <li>Provide list of Cooling Centers to open</li> <li>Develop staffing pattern</li> </ul>	Monitor center status and notify OEM of any changes     Extend hours, as needed	<ul> <li>Close Cooling Centers</li> </ul>
Advance Warning System Partners		<ul> <li>Distribute AWS heat tips</li> <li>Participate in preseason AWS call</li> </ul>		<ul> <li>Notify clients and staff about heat and Cooling Centers</li> <li>Review emergency plans</li> </ul>	<ul> <li>Participate in AWS call and distribute information</li> <li>Provide daily outreach and census numbers</li> <li>Monitor heat impact</li> </ul>	
GIS	<ul> <li>Update facility information</li> <li>Create maps of Cooling Centers</li> </ul>	<ul> <li>Update Cooling Center Finder</li> <li>Monitor facility data</li> </ul>		<ul> <li>Manage Cooling Center data</li> <li>Prepare Cooling Center Finder</li> </ul>	<ul> <li>Update Cooling Finder data as needed</li> <li>Provide daily center counts reports</li> </ul>	• Turn off Coolir Center Finder
External Affairs ESF		<ul> <li>Assist in creation of preseason messaging</li> </ul>		<ul> <li>Assist in creation of AWS message</li> <li>Update OEM website</li> <li>Notify 311</li> </ul>	<ul> <li>Update website, as needed</li> <li>Collect data from 311</li> <li>Assist in creation of AWS messages</li> <li>Deploy CERT, if necessary</li> </ul>	• Notify 311 of Cooling Cente closure
Utilities ESF Public Safety ESF		• Distribute Cooling Center lists to partner agencies			Distribute daily Cooling Center lists to partner agencies	
Health and Medical ESF		<ul> <li>Assist in creation of preseason messaging</li> </ul>		• Assist in AWS messaging	• Support AWS conference calls	
	Spring	Early June	48 Hours Out	24 Hours Out	Ongoing	Conclusion

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# **Activation Phase**

**Timing:** Activation of New York City Heat Emergency Plan

Cooling Centers are provided to the public for the length of any Heat Emergency in New York City and their availability is communicated to the public.

#### This section of the Protocol:

- Describes the procedures for activating New York City's Cooling Center system;
- Details the tasks of monitoring continuing Cooling Center operations during Heat Emergencies;
- Guides the process of maintaining accurate information about Cooling Center facilities during Heat Emergencies;
- Directs public messaging about Cooling Centers and heat-related hazards; and
- Describes heat-related outreach through the Advance Warning System.

### **Organization**

The Activation Phase consists of three procedures:

- 1. Opening Cooling Centers
- 2. Monitoring Cooling Centers
- 3. Emergency Messaging

### **Partnerships**

Six types of partners provide support to the Activation Phase of this Protocol: **Cooling Center Partners, Potential Cooling Center Partners, Potential Staffing Assistance Agencies, Advance Warning System Partners, Supporting Agencies** and the **Coordinating Agency.** 

<ul> <li>Cooling Center Partners</li> <li>➡ Provide appropriate facilities for use as Cooling Centers, staff facilities, and monitor Cooling Centers operations during Heat Emergencies</li> <li>➡ Update Coordinating Agency on any changes to continued use of Cooling Center facilities</li> </ul>	<ul> <li>Potential Cooling Center Partners</li> <li>⇒ Provide appropriate facilities for use as Cooling Centers and monitor Cooling Centers operations during Heat Emergencies, if additional demand centers are requested</li> <li>⇒ Update Coordinating Agency on any changes to continued use of Cooling Center facilities</li> </ul>
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#### New York City Heat Emergency Cooling Center Protocol FOR OFFICIAL USE ONLY – Not for Circulation

<ul> <li>Potential Staffing Assistance Agencies</li> <li>⇒ Provide staffing assistance to support operations, if additional demand centers are opened</li> </ul>	Coordinating Agency ⇒ Coordinates with Cooling Center Partners to create daily lists of Cooling Centers to open, selects appropriate operating hours, and monitors continued operations ⇒ Updates and maintains the Cooling Center Finder application during Heat
<ul> <li>Advance Warning System Partners</li> <li>⇒ Support outreach on heat safety, heat hazards, and Cooling Centers</li> <li>⇒ Participate in Conference Calls, if applicable</li> </ul>	<ul> <li>⇒ Creates maps and other documents in support of Cooling Center operation</li> <li>⇒ Provides lists of Cooling Center locations to agency partners, when requested</li> <li>⇒ Coordinates Advance Warning System messaging and conference calls</li> </ul>
Supporting Agencies         ⇒ Support Cooling Center Finder         ⇒ Provide public with information about         Cooling Centers         ⇒ Provide transportation resources to         support Cooling Centers, when possible	➡ Collects Cooling Center outreach and census numbers

The agencies that undertake these partnership roles are described in detail in each procedure section of this phase.

### References

Partners may use the following documents for more information about this phase:

- Human Services Heat Plan Activation Checklist (Annex C)
- GIS Cooling Center Procedures and Checklist (Annex D)
- Cooling Center Contacts sheet (maintained by Human Services; found in Heat Emergency Plan folder on OEM intranet)
- Advance Warning System Messaging (See Special Needs Advance Warning System Plan, Annex A)
- Advance Warning System Conference Call Form (See Special Needs Advance Warning System Plan, Annex C)

# **Procedure 1: Opening Cooling Centers**

# **Objective**

Make a sufficient number of Cooling Centers available Citywide to assist members of the public seeking relief from peak heat conditions.

# Summary

Cooling Centers are activated every time the New York City Heat Emergency Plan is activated. In anticipation of a Heat Emergency in New York City, OEM will contact its Cooling Center Partners to select facilities to open as Cooling Centers and set appropriate hours of operations.

# **Initial Notification**

When the National Weather Service first forecasts a possible Heat Event affecting New York City, OEM's Team Leadership or Watch Command should notify the Human Services Emergency Support Function (ESF) Coordinator of the potential need to activate the Cooling Center system. In response, the Human Services ESF should:

- Notify all Cooling Center Partners of a possible Heat Event, and the potential for Cooling Center activation.
- Work with GIS to confirm status of the Cooling Center Finder and facility data, and begin mapping Cooling Center locations, if necessary.

# **Opening Procedure**

When requesting the opening of Cooling Centers from partners, the following should be considered:

- Cooling Center Partners prefer at least 24 hours notice to activate their facilities as Cooling Centers.
- Requests for activation should be made as early in the day as possible to allow for call down procedures to occur during regular business hours.
- Partners select Cooling Center locations and provide extended hours based on staffing availability and budget. Religious holidays and weekly observances can limit the number of Centers that can be activated, especially on Saturdays and Sundays. Budget and staffing policies may not allow for activation of certain Centers on national holidays.
- Availability is most robust Monday through Friday, which reflects the Centers' normal operating hours.
- Requests for extended hours should be made the day before, at minimum.
- □ Notification of weekend activations should be made by Thursday, if possible.
- Only certain Cooling Center Partners provide extended hours or weekend operations (See *Table 2* on page 28).
- When choosing Centers to activate, preference should be given to locations that provide accessibility to people with disabilities.

Procedure 1: Opening Cooling Centers 14

### New York City Heat Emergency Cooling Center Protocol

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□ For City-run facilities, priority should be given to Department for the Aging senior centers before opening New York City Housing Authority community centers.

### **Extended Hours**

Extended hours are additional operating hours on top of a facility's normal hours of operation. While the need for extended hours is at OEM's discretion based on National Weather Service forecasts, Cooling Center Partners should anticipate that the City will request that Cooling Centers stay open late when the Heat Index is forecasted to be 100° F or higher for more than two consecutive days.

# **Additional Demand Centers**

If demand for Cooling Centers exceeds the number of locations available from Cooling Center Partners during any Heat Event, OEM may reach out to its City and non-profit partners to identify additional Cooling Centers. Staffing assistance for these locations may be provided.

# CERT

Community Emergency Response Teams may be used to assist in staffing of Cooling Centers or other operational support, upon request. CERT will be deployed by the External Affairs ESF following standard CERT deployment protocol.

# **Transportation**

In the event of a sudden loss of a functioning Cooling Center, OEM will work with the Metropolitan Transportation Authority to provide air-conditioned buses to clients and transport to a nearby functioning Cooling Center, when possible. Transportation requests should be facilitated through Team Leadership and Watch Command.

### **Emergencies**

The New York City Police Department will respond to emergencies and calls for service at Cooling Centers through 911.

### **Beaches and Pools**

When Cooling Centers are activated, OEM may also encourage the public to use beaches and pools managed by New York City Department of Parks and Recreation. The location of local beaches and pools can be found through NYC.gov/parks and 311. Parks can extend beach and pool hours If demand for cooling facilities warrants. If hours are extended, Parks will coordinate with NYPD for additional security as necessary.

# **Partnerships for Procedure 1**

#### **Coordinating Agency**

- □ New York City Office of Emergency Management
  - Human Services Emergency Support Function
  - GIS
  - External Affairs Emergency Support Function
  - Public Information Officer
  - Utilities Emergency Support Function
  - Public Safety Emergency Support Function
  - Infrastructure Emergency Support Function

#### **Cooling Center Partners**

- New York City Department for the Aging
- New York City Housing Authority
- Salvation Army Greater New York Division
- New York Public Library
- Brooklyn Public Library
- Queens Library
- New York City Department of Parks and Recreation

#### **Potential Cooling Center Partners**

- City University of New York
- New York City Department of Education

#### **Potential Staffing Assistance Agencies**

- American Red Cross of Greater New York
- New York City Human Resources Administration
- Community Emergency Response Teams

#### **Supporting Agencies**

- New York City Department of Information Technology and Telecommunications
- 311
- New York City Police Department
- Metropolitan Transportation Authority
- New York City Department of Parks and Recreation

### **Procedure 1 Tasks**

Coordinating Agency Tasks – Human Services ESF Partner Notification and Opening of Cooling Centers Tasks						
Makes recommendation to OEM Team Leadership to open Cooling Centers based on weather reports.						
Leads Cooling Center activation and notification of Cooling Center Partners for each day of requested operation.						
Coordinates with Cooling Center Partners to obtain daily lists of Cooling Centers to open, including hours of operation.						
Requests select locations with extended hours from Cooling Center Partners, as needed, based on National Weather Service forecasts of peak heat times.						
Provides GIS will the lists of opening Cooling Centers.						
Disseminates Cooling Center and Heat Emergency information through an Advance Warning System email message.						
Convenes a conference call with all Advance Warning System umbrella agencies to discuss:						
Weather forecast						
Availability of Cooling Centers						
Health impacts of heat						
Heat impact on essential services and continuity planning						
Outreach efforts     Derivides lists of energy Conter leastions to Litilities and Bublic Safety ESEs for						
Provides lists of open Cooling Center locations to Utilities and Public Safety ESFs for dissemination.						

#### Coordinating Agency Tasks – GIS Opening of Cooling Centers Tasks

- Creates lists of open Cooling Centers.
- Updates the Cooling Center Finder to reflect the Cooling Centers available for each event.
- Coordinates with DoITT to turn on the Finder and assure its availability.

#### Coordinating Agency Tasks – External Affairs ESF Opening of Cooling Centers Tasks

A Makes the Cooling Center Finder available on OEM website and through 311.

#### Coordinating Agency Tasks – Public Information Officer Opening of Cooling Centers Tasks

Distributes a press release on the availability of Cooling Centers.

#### Coordinating Agency Tasks – Utilities and Public Safety ESF Opening of Cooling Centers Tasks

- Utilities provides lists of open Cooling Center locations (provided by Human Services ESF) to utilities liaisons (e.g., ConEd, National Grid) for identification as critical facilities in power disruptions.
- Public Safety provides a list of open Cooling Center locations (provided by Human Services ESF) to NYPD Operations for identification as critical facilities.

#### Coordinating Agency Tasks – Infrastructure ESF Opening of Cooling Centers Tasks

Coordinates extended beach and pool hours with Department of Parks and Recreation.

#### Cooling Center Partners Opening of Cooling Centers Tasks

- Identify Cooling Center locations that can open each day of the heat event, including hours of operation.
- Provide extended hours at select locations, if possible.
- Staff and maintain Cooling Center locations following standard operating procedures.
- Provide liaisons to OEM for contact throughout Heat Emergency.

#### Potential Cooling Center Partners Opening of Cooling Centers Tasks

- Identify facilities that may be designated as Cooling Centers, if demand for Cooling Centers exceeds available capacity from Cooling Center Partners.
- Provide liaisons to OEM for contact throughout Heat Emergency.

#### Potential Staffing Assistance Agencies Opening of Cooling Centers Tasks

Provide staffing assistance if additional demand Cooling Center locations opened, as needed and as available.

#### Supporting Agencies Opening of Cooling Centers Tasks

#### New York City Department of Information Technology and Telecommunications:

- Coordinates with OEM to update and maintain the Cooling Center Finder.
- 311:
- Provides information to callers regarding Cooling Center locations and tracks number of inquiries.

#### Metropolitan Transportation Authority:

■ Works with OEM to deploy air-conditioned buses to critical locations, when possible. New York City Police Department:

□ Coordinates with Parks for security at extended-hour beaches and pools, as needed. New York City Department of Parks and Recreation:

Extends beach and pool hours, as needed.

### Maintenance of Cooling Center Master List

For each new Heat Event, Human Services ESF and GIS compile a master list of the Cooling Centers to open for the first day of activation. This list serves as a point of reference throughout the Heat Event. It is updated to reflect centers that close during the course of the operation and will be used to produce new daily lists for each additional day of the event.

### **Maintenance of Cooling Center Finder**

Human Services ESF and GIS work to ensure that the information available to the public through the Cooling Center Finder is as accurate as possible throughout the Heat Event. Facilities that are required to close due to air conditioning malfunctions or other problems will be immediately removed by OEM from the Finder, upon notice from the oversight agency.

Additional Cooling Center Finder considerations are as follows:

- The Cooling Center Finder must remain available to the public throughout the Heat Emergency, including hours outside of Cooling Center operating times, to allow individuals to plan ahead.
- Language should direct users to confirm operating hours for a Center each day, as availability may change day to day.
- Language should direct users to call a Center to confirm its open status before traveling in the heat.
- Maintenance to the Cooling Center Finder during the Heat Emergency should be completed during periods of low demand.

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FOR OFFICIAL USE ONLY – Not for Circulation For more information on the Cooling Center Finder, see page 30.

# **Dissemination of Cooling Center Lists**

While the Cooling Center Finder and public information about specific Cooling Center locations is web based, the information is also available through 311. Individuals without computer access should call 311 to find open Cooling Centers near their home. A 311 operator will enter the caller's address into the Finder and provide them with the same information as found on the website.

The full list of Cooling Center locations is kept internal to OEM and only shared with agency partners on a need-to-know basis. Any Cooling Center Partner or supporting agency can request the full list of locations for their administrative and planning purposes with the understanding that the list should not be make public.

The full list is not shared with the public or media to prevent confusion about Cooling Center availability and mistaken reliance on facilities that may not be activated on a particular day or for a particular event. Any request for Cooling Center locations should be directed to the Cooling Center Finder or 311. OEM's Public Information Officer may make available information about the number of Cooling Centers activated and the agencies that are providing facilities, but specifics are avoided.

# **Daily Census Numbers**

Select Cooling Center Partners provide daily census numbers to OEM for each operation day when available (See *Table 2* on page 28). The daily census tracked for normal hours of operation in Cooling Center Partner facilities does not necessarily represent all individuals seeking respite from the heat. The facility's ability to maintain existing services while expanding the operation during a Heat Event is vital for regular clients and an indicator for their overall effectiveness. A drop in these numbers would suggest the heat is causing negative impact on vulnerable populations. The census information collected during extended hours is a more reliable indicator of direct demand for cooling relief. See Annex E for a sample census form.

**Note:** Daily Census Numbers take time to compile and may not be available until several days later.

# Procedure 2: Monitoring Cooling Centers

# **Objective**

Ensure that all Cooling Centers made available to the public continue to provide air conditioning and remain open during stated hours of operations.

# Summary

While Cooling Centers are activated, Cooling Center Partners report any changes to locations that make them unusable as Cooling Centers (e.g., air conditioner failure or a need to close early.) When this occurs, locations are removed immediately from the Cooling Center Finder to prevent the public from relying on a Cooling Center that is not open.

# **Partnerships for Procedure 2**

#### **Coordinating Agency**

- New York City Office of Emergency Management
  - Human Services Emergency Support Function
  - GIS
  - External Affairs Emergency Support Function

#### **Cooling Center Partners**

- New York City Department for the Aging
- New York City Housing Authority
- Salvation Army Greater New York Division
- New York Public Library
- Brooklyn Public Library
- Queens Library
- □ New York City Department of Parks and Recreation

#### Potential Cooling Center Partners

- City University of New York
- New York City Department of Education

#### **Potential Staffing Assistance Agencies**

- American Red Cross of Greater New York
- New York City Human Resources Administration
- Community Emergency Response Teams

### **Procedure 2 Tasks**

#### New York City Heat Emergency Cooling Center Protocol FOR OFFICIAL USE ONLY – Not for Circulation

#### Coordinating Agency Tasks – Human Services ESF Cooling Centers Monitoring Tasks

- Remains available to Cooling Center Partners to receive reports of any changes to Cooling Center locations.
- □ Notifies GIS of any changes to Cooling Center locations.
- □ Works with GIS to update the Cooling Center master list, as needed.
- □ Notifies Cooling Center Partners of any emergency incidents affecting their facilities.
- Notifies Cooling Center Partners of any significant public comments OEM receives about their facilities and operations.
- Collects daily census numbers from Cooling Center Partners.
- Disseminates Advance Warning System email messages, at his or her discretion.
- Convenes additional conference calls with Advance Warning System umbrella agencies, at its discretion.

#### Coordinating Agency Tasks – GIS Cooling Centers Monitoring Tasks

- Upon notification, immediately updates Cooling Center Finder to reflect any changes.
- □ Works with Human Services to update the Cooling Center master list, as needed.
- Creates daily summaries of Cooling Centers available, including number of Centers open by borough and agency, and the number of Centers that are accessible (see Annex E).

#### Coordinating Agency Tasks – External Affairs ESF Cooling Centers Monitoring Tasks

□ Maintains the availability of the Finder on the OEM website and through 311.

#### Cooling Center Partners Cooling Centers Monitoring Tasks

- Monitor the opening and continued operation of all Cooling Center locations, including staffing.
- Immediately notify OEM Human Services of any changes to locations that forces closure, including air condition failure and lack of staff.
- Provide daily census numbers at Centers, when available (Only certain Cooling Center Partners provide census numbers see *Table 2* on page 28).
- Provide extended hours at select locations, if possible.

#### Potential Cooling Center Partners Cooling Centers Monitoring Tasks

Follow the same monitoring tasks as Cooling Center Partners, if providing facilities to meet additional Cooling Center demand.

#### Potential Staffing Assistance Agencies Cooling Centers Monitoring Tasks

Provide staffing assistance to support continued operations, as needed and as available.

### Deactivation

When the National Weather Service forecasts indicate an end to Heat Emergency conditions, the Human Services ESF will contact Cooling Center Partners to demobilize their facilities as Cooling Centers and OEM will turn off the Cooling Center Finder. Centers will remain open for the previously publically stated hours of operation for that day, regardless of changes to forecasts.

**Procedure 3: Emergency Messaging** 

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# **Objective**

Communicate the availability of Cooling Centers to the public.

# Summary

During Heat Emergencies the public is encouraged to visit Cooling Centers for relief from the heat. Additionally the public should use air conditioning in their homes, if available, and follow heat safety tips. These points are highlighted in emergency messaging. Heat Safety Tips can be found in Annex F.

**Note:** Many of the tasks for this procedure follow the Special Needs Advance Warning System Plan. This section of the Protocol applies that plan to a Cooling Center activation and Heat Emergency.

# **Partnerships for Procedure 3**

#### **Coordinating Agency**

- New York City Office of Emergency Management
  - Human Services Emergency Support Function
  - Health and Medical Emergency Support Function
  - External Affairs Emergency Support Function

#### **Advance Warning System Partners**

- Advance Warning System Email Recipient Agencies
- Advance Warning System Conference Call Agencies

### **Procedure 3 Tasks**

#### Coordinating Agency Tasks – Human Services ESF Emergency Messaging Tasks

- Sends an initial Advance Warning System email message to alert all AWS partners of the Heat Emergency and the availability of Cooling Centers, as soon as the NYC Heat Emergency Plan is activated.
- Disseminates Advance Warning System email messages, at his or her discretion.
- Shares Heat Safety Tips when communicating heat-related hazards (see Annex F).
- Convenes an initial Advance Warning System conference call to discuss the heat emergency, Cooling Centers, and health impacts of extreme heat, as soon as the Heat Emergency Plan is activated.
- Convenes additional conference calls with Advance Warning System umbrella agencies, at his or her discretion, until demobilization.

#### Coordinating Agency Tasks – Health and Medical ESF Emergency Messaging Tasks

- □ Supports emergency messaging efforts.
- Supports Advance Warning System conference calls.

#### Coordinating Agency Tasks – External Affairs ESF Emergency Messaging Tasks

Supports emergency messaging efforts through updates of the OEM website, social media, and communication with press.

#### Advance Warning System Partners

#### Emergency Messaging Tasks

#### AWS email recipient agencies and AWS Conference Call agencies:

Share heat safety tips and convey information about heat emergencies and Cooling Centers to clients with special needs, partner agencies, and staff.

#### AWS Conference Call agencies:

- Attend Conference Call and share information about:
  - Heat impact on essential services
  - Continuity planning
  - Outreach efforts

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# **Preparedness Phase**

Timing: Spring each year

Annual preparedness includes selecting appropriate Cooling Center locations for use during Heat Emergencies and communicating heat-related hazards to the public.

#### This section of the Protocol:

- Describes the procedures for identifying Cooling Centers locations;
- Details the obligations of Cooling Center Partners;
- Guides the updating of Cooling Center location data; and
- Directs preseason public messaging about Cooling Centers and heat-related hazards.

### Organization

The Preparedness Phase consists of two procedures:

- 1. Identifying Cooling Center locations
- 2. Preseason messaging

### **Important Preparedness Dates**

April 15 – OEM provide facility lists to Cooling Center Partners to update	May 15 – OEM sends preseason AWS Message about heat hazards and Cooling Centers
May 1 – Cooling Center Partners provide updated facility lists to OEM	June 1 – OEM and DoITT update the Cooling Center Finder for use during the summer
May 15 - OEM completes season's Cooling Center list	Early June – OEM holds preseason AWS Conference Call about heat hazards and Cooling Centers

### **Partnerships**

Four types of partners provide support to the Preparedness Phase of this Protocol: **Cooling Center Partners, Advance Warning System Partners,** the **Coordinating Agency** and the **Supporting Agency.** 

Cooling Center Partners         ⇒ Provide appropriate facilities for use as         Cooling Centers         ⇒ Support the maintenance of accurate         facility information	Coordinating Agency ⇒ Maintains a robust citywide system of Cooling Centers for use during Heat Emergencies ⇒ Coordinates with Cooling Center Partners to update Cooling Center facility lists and collect accurate facility data				
Advance Warning System Partners ⇒ Support outreach on heat safety, heat hazards and Cooling Centers ⇒ Participate in Conference Calls, if applicable	<ul> <li>collect accurate facility data</li> <li>⇒ Coordinates the updating and maintenance of the Cooling Center Finder application</li> <li>⇒ Creates maps and other documents in support of Cooling Center operations</li> <li>⇒ Provides lists of Cooling Center locations to agency partners, when requested</li> </ul>				
Supporting Agency ⇒ Updates and maintains the Cooling Center Finder application	➡ Coordinates Advance Warning System messaging and conference calls				

The agencies that undertake these partnership roles are described in detail in each procedure section of this phase.

# **Cooling Center Partners**

In New York City, seven agencies provide facilities for use as Cooling Centers during Heat Emergences. These agencies, also known as "Cooling Center Partners," are:

- New York City Department for the Aging
- New York City Housing Authority
- Salvation Army Greater New York Division
- New York Public Library
- Brooklyn Public Library
- Queens Library
- New York City Department of Parks and Recreation

During the Preparedness Phase each partner identifies facilities for anticipated use as Cooling Centers during that summer, with the understanding of the specific obligations on their agency during any Heat Emergency. These obligations are listed in Table 2 below.

### New York City Heat Emergency Cooling Center Protocol

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#### Table 2

Cooling Center Partners and Obligations							
	Partner Agencies						
Obligations	NYC Dept. for the Aging	NYC Housing Authority	Salvation Army	Libraries	NYC Dept. of Parks and Recreation		
Air-Conditioned Facilities	$\checkmark$	$\checkmark$	✓	✓	$\checkmark$		
Notification of Problem Facilities	$\checkmark$	$\checkmark$	✓	✓	$\checkmark$		
Accessible Facilities	$\checkmark$	$\checkmark$	✓	✓	$\checkmark$		
Extended Hours	$\checkmark$	✓	✓				
Additional Days of Operation	$\checkmark$	✓	✓				
Census Numbers	$\checkmark$	$\checkmark$					
AWS Conference Call Attendance	$\checkmark$	$\checkmark$	$\checkmark$				

Additional considerations include:

- Extended hours are on top of a facility's normal hours of operation, upon request and as available.
- Additional days of operation are defined as days when the facility is not normally open, typically weekends and holidays, upon request and as available.
- New York City Department of Parks and Recreation may be requested to provide Cooling Center locations on weekends, holidays or other days when there are gaps in the overall system. These locations are not part of the typical Cooling Center activation.
- Advance Warning System Conference Call attendance by the libraries and Parks is preferred but not required.

Further details on partner obligations are found in the Preferred Cooling Centers section in **Procedure 1** below and the **Activation Phase** section of this protocol.

### References

Partners may use the following documents for more information about this phase:

- Rules of Operation for Cooling Centers (Annex A)
- GIS Cooling Center Data Template
- Advance Warning System Messaging (See Special Needs Advance Warning System Plan, Annex A)
- Advance Warning System Conference Call Form (See Special Needs Advance Warning System Plan, Annex C)

# Procedure 1: Identifying Cooling Center Locations

# **Objective**

Select facilities that can be utilized by the public as Cooling Centers during Heat Emergencies.

# Summary

Each Spring, OEM Human Services Unit works with its Cooling Center Partners to identify suitable facilities that can be used as Cooling Centers. With OEM Geographic Information Systems (GIS) Unit, facility data is collected, compiled, mapped, and entered into the Cooling Center Finder.

## **Preferred Cooling Centers**

In identifying locations for use as Cooling Centers, OEM and the Cooling Center Partners should select facilities:

- Already serving as natural gathering places within the community; and
- Providing services for older adults, people with disabilities, and people with chronic medical conditions.

Additional considerations for selecting Cooling Center facilities are as follows:

- □ Free and open to people of all ages.
- Air conditioning in areas appropriate for groups of people to gather.
- Open during regular business hours on weekdays.
- Potential to extend business hours to provide relief from peak heat occurring in the late afternoon and evening.
- Potential to open for additional days to provide relief for heat occurring on weekends and holidays.
- Part of an existing network of locations throughout all five boroughs of New York City, with common oversight for activation and monitoring.
- Overseen by staff that can immediately report any facility issue.
- Physically accessible to people with disabilities, when possible.
- Convenient to reach by mass transportation or walking, when possible.

Cooling Center agencies should consider using the Rules of Operation for Cooling Centers (See Annex A) as a template for creating operational guidelines for their facility staff.

### **Cooling Center Finder**

The Cooling Center Finder is a web-based application, accessed through the OEM website or by calling 311, used by the public to locate the open Cooling Centers closest to an address they provide.

The Cooling

Center Finder is the primary source of public information about available Cooling Centers during a Heat Emergency.

- OEM Human Services Unit requests facility data from Cooling Center Partners to populate the Finder.
- OEM GIS Unit turns on the Finder and maintains it during Cooling Center activations.
- OEM External Affairs Unit makes the Finder available on the OEM website and coordinates call scripts and data with 311.
- The Finder data is updated during the Preparedness Phase to assure it can be turned on quickly during a Heat Emergency.

Additional Cooling Center Finder considerations are found in the Activation Phase – Open Cooling Centers section of this protocol. Further information on the Finder can be found in Annex B.

### **Partnerships for Procedure 1**

#### **Coordinating Agency**

- New York City Office of Emergency Management
  - Human Services Unit
  - GIS Unit
  - Transportation & Infrastructure Unit
  - Public Safety Liaisons

#### **Cooling Center Partners**

- New York City Department for the Aging
- New York City Housing Authority
- Salvation Army Greater New York Division
- New York Public Library
- Brooklyn Public Library
- Queens Library
- New York City Department of Parks and Recreation

#### **Supporting Agency**

New York City Department of Information Technology and Telecommunications

### **Procedure 1 Tasks**

#### Coordinating Agency Tasks – Human Services and GIS Units Cooling Center Identification and Data Collection Tasks

- Review the previous season's lists of Cooling Center locations and provide each Cooling Center Partner with their list to update for the new season by April 15.
- Work with each Cooling Center Partner to review and collect the following information for every Cooling Center facility and assure its accuracy:
  - Facility name
  - Address (including zip code and borough)
  - Phone number
  - Point of contact
  - Accessibility for people with disabilities
  - Regular operating hours
  - Potential for extended hours
  - Host agency
  - Operating agency
  - Notes concerning upcoming changes to operations and long-term closure
- Complete each season's Cooling Center facility list by May 15.
- Review each season's completed list to assure a sufficient number of Cooling Center locations citywide.

#### Coordinating Agency Tasks – GIS Unit Data Collection Tasks

Reviews agency information and complies additional information for each Cooling Center location, including:

- X and Y coordinates
- Building Identification Number (BIN)
- Unique ID (assigned by GIS)
- Electricity Network
- Provides DoITT with the completed facility data and coordinates the updating of the Cooling Center Finder by June 1.
- Creates maps of the Cooling Center locations, as requested by Human Services Unit, for internal use and to share with Cooling Center Partners.

#### Coordinating Agency Tasks – Transportation & Infrastructure Unit and Public Safety Liaisons Data Collection Tasks

- Transportation and Infrastructure Unit provides lists of Cooling Center locations (provided by Human Services Unit) to utilities liaisons (e.g., ConEd, National Grid) for identification as critical facilities for power disruptions.
- Public Safety liaisons provide a list of all Cooling Center locations (provided by Human Services Unit) to NYPD Operations for identification as critical facilities.

#### **Cooling Center Partners**

#### **Cooling Center Identification and Data Collection Tasks**

- Review the previous season's Cooling Center locations list and provide updates of the following:
  - Changes to facility information

1.

- Locations no longer able to function as Cooling Centers
- Additional locations that can be added as Cooling Centers
- Provide OEM with completed Cooling Center list by May 1.
- Assure accuracy of facility information throughout the spring and summer, providing OEM with any changes, as needed.
- □ Assure each selected facility adheres to the preferred Cooling Center characteristics.

#### Supporting Agency Data Collection Tasks

- Loads the data set in the Cooling Center Finder application to reflect each season's facility list.
- Assures the Cooling Center Finder is ready for use during any Heat Emergency by June

# **Additional Cooling Center Partners**

OEM may identify additional government and non-profit partners to provide Cooling Center locations and become Cooling Center Partners, as needed, with the following considerations:

 Potential new partners should have the authority to activate multiple facilities as Cooling Centers, to limit administrative work; and

Any new partner must follow the procedures in this Protocol.

# **Procedure 2: Preseason Messaging**

# **Objective**

Communicate information about heat-related hazards and the availability of Cooling Centers prior to the start of summer to special needs service providers.

# Summary

Each Spring, OEM Human Services Unit will use the Advance Warning System to share preseason heat safety information and convene a conference call to discuss the impact of extreme heat on clients and agency services.

**Note:** Many of the tasks for this procedure follow the Special Needs Advance Warning System Plan. This section of the Protocol applies that plan's preseason messaging guidance to Heat Emergencies.

# **Partnerships for Procedure 2**

#### **Coordinating Agency**

- New York City Office of Emergency Management
  - Human Services Unit
  - Health and Medical Unit
  - External Affairs Unit

#### **Advance Warning System Partners**

- Advance Warning System Email Recipient Agencies
- Advance Warning System Conference Call Agencies

New York City Heat Emergency Cooling Center Protocol

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### **Procedure 2 Tasks**

#### Coordinating Agency Tasks – Human Services Unit Preseason Messaging Tasks

- Distributes heat safety tips and information about the availability of NYC Cooling Centers during heat emergency to all Advance Warning System Email Recipient Agencies by May 15.
- Conducts a conference call with all Advance Warning System Conference Call Agencies in early June to discuss:
  - Health impacts of heat
  - Heat impact on essential services and continuity planning
  - Outreach efforts
  - Overview of the NYC Heat Emergency Plan, including Cooling Center Protocol
  - Advance Warning System procedures

#### Coordinating Agency Tasks – Health and Medical Unit Preseason Messaging Tasks

- □ Supports preseason messaging efforts.
- Supports Advance Warning System conference calls.

#### Coordinating Agency Tasks – External Affairs Unit Preseason Messaging Tasks

Assists Human Services in the creation of all Advance Warning System messages.

#### **Advance Warning System Partners**

#### Preseason Messaging Tasks

### Advance Warning System Email Recipient Agencies and Advance Warning System Conference Call Agencies:

Share heat safety tips and convey information about heat emergencies and Cooling Centers to clients with special needs, partner agencies, and staff.

#### Advance Warning System Conference Call Agencies:

- Attend Conference Call and share information about:
  - Heat impact on essential services
  - Continuity planning
  - Outreach efforts

## Annex A: Rules of Operation for Cooling Centers

This list represents model rules that each Cooling Center Partner may use in communicating Cooling Center operational requirements to its facility staff, along with any additional agency-specific directives they wish to provide. During any Cooling Center operation, unless stated otherwise in these model rules, each agency should continue to follow its normal procedures and policies for staff, client, and facility oversight.

- 1) Before the summer, and again before opening during a Heat Emergency, facilities should ensure that their air conditioning systems are fully functional.
- 2) Facilities must remain open during stated hours of operation as a Cooling Center. 311 will refer people to the Center during the hours it has agreed to remain open. If there are any changes to a facility's hours of operation, staff should *promptly notify* their agency point of contact, so that their center can be removed from the 311 listing of Cooling Centers.
- 3) If the facility's air conditioning system suddenly breaks down, staff should *promptly notify* their agency point of contact.
- 4) A staff person who is familiar with facility operations must be on site and the telephone must be answered during stated hours of operation. If facility's telephone number is shared with a fax machine, make sure that the telephone is not in fax mode while the facility is operating during extended hours or on weekends (persons seeking respite from the heat and City officials must be able to call your facility).
- 5) During stated hours of operation, Cooling Centers must allow entrance to any person who seeks respite from the heat.

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# Annex B: Cooling Center Finder

Information about Cooling Center locations is made available to the public through the Cooling Center Finder, an application that runs on OEM's website at

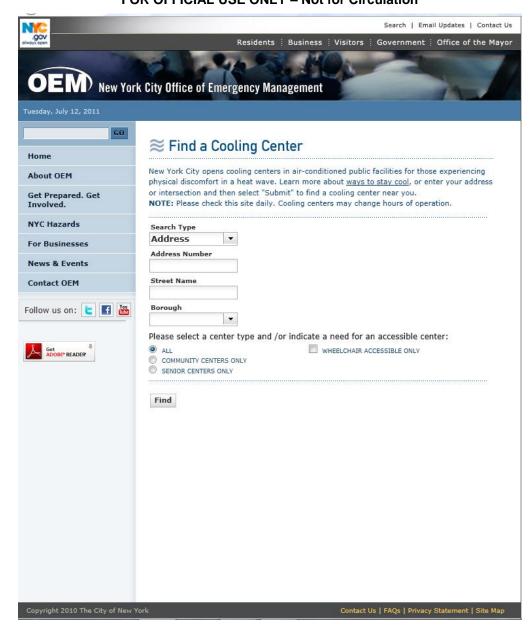
<u>http://gis.nyc.gov/oem/cc/index.htm</u>. Individuals without computer access can obtain this information by calling 311. This Annex illustrates the Finder's use and features.



#### Figure 1 – OEM's home page during a Heat Event

OEM External Affairs makes a link to the Finder available along with heat safety tips and other information.

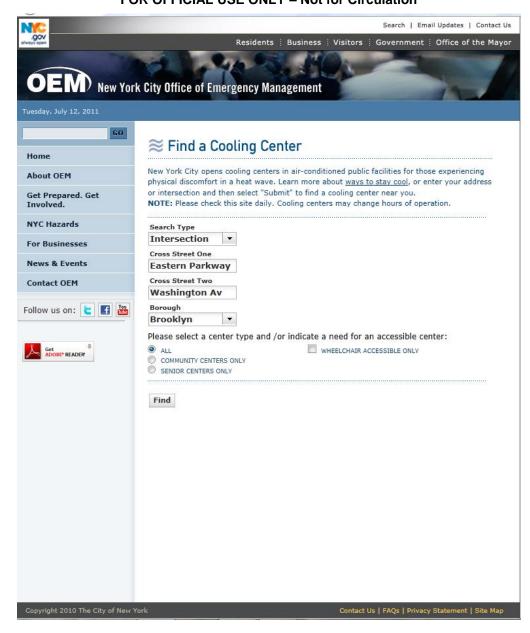
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#### Figure 2 – The Finder's main page

Users can enter a street address or intersection to find nearby Cooling Centers. Searches can be limited to show only senior centers, community centers, or wheelchair-accessible locations. This view of the Finder is only available when the application is live during a Heat Event.

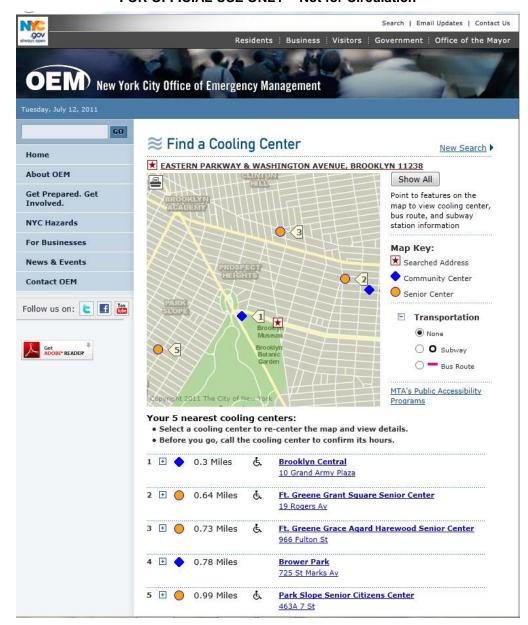
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#### Figure 3 – Finder with an intersection entered

In this mode, the address number and street name fields change to cross street fields.

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#### Figure 4 – Search results

The Finder shows the five nearest Cooling Centers from the address entered. Note the locations are marked with icons and numbers both on the map and in a list. The name of each location and address is provided, along with information about the location type, its accessibility, and the distance to the location from the address entered.

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#### Figure 5 – Expanded location view

The location will expand to show additional information, including hours of operation and contact information, when a user places their mouse over the point on the map or clicks the expand icon in the list.

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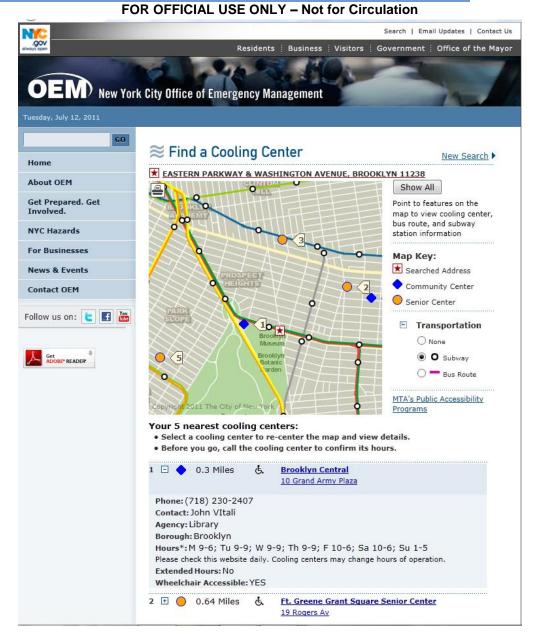
FOR OFFICIAL USE ONLY – Not for Circulation Search | Email Updates | Contact Us NYC .gov Residents : Business : Visitors : Government : Office of the Mayor OEM New York City Office of Emergency Management GO ≈ Find a Cooling Center New Search Home ★ EASTERN PARKWAY & WASHINGTON AVENUE, BROOKLYN 11238 About OEM 1 TLER Show All STERLING Get Prepared. Get Point to features on the Involved. map to view cooling center, 32 bus route, and subway NYC Hazards PLZ station information For Businesses Map Key: News & Events 🔀 Searched Address ()EASTERN PKWY Community Center Contact OEM Senior Center DR \* Mount Prospect Park Follow us on: 눝 🖪 🔤 Transportation None Brooklyn Museum O O Subway 🔘 💳 Bus Route MTA's Public Accessibility Copyright 2011 The City of New York Programs Your 5 nearest cooling centers: Select a cooling center to re-center the map and view details. Before you go, call the cooling center to confirm its hours. 1 🖃 🔶 0.3 Miles 🔥 <u>Brooklyn Central</u> 10 Grand Army Plaza Phone: (718) 230-2407 Contact: John VItali Agency: Library Borough: Brooklyn Hours\*: M 9-6; Tu 9-9; W 9-9; Th 9-9; F 10-6; Sa 10-6; Su 1-5 Please check this website daily. Cooling centers may change hours of operation.

#### Extended Hours: No Wheelchair Accessible: YES 2 🗄 😑 0.64 Miles 🐇 Ft. Greene Grant Square Senior Center 19 Rogers Av

#### Figure 6 – Map close-up

Clicking on a location's name in the list will zoom in the map view, as well as expand the information shown for that location in the list.

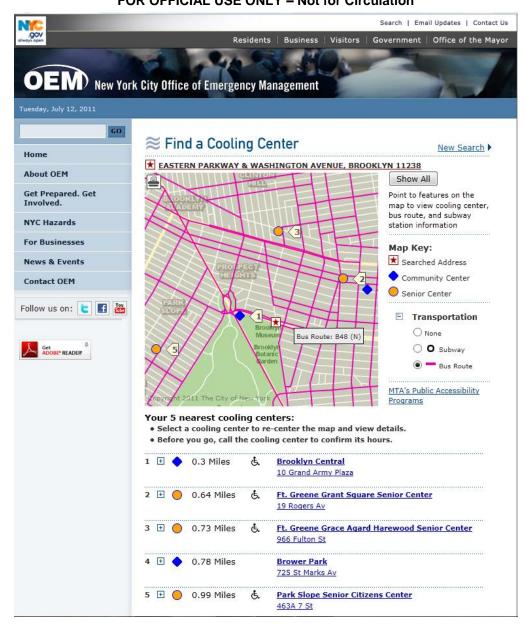
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#### Figure 7 – Subway information

Subway lines can be added to the map to help users plan travel to the location. The name of the subway stop and the subway lines served at that stop are displayed when the user's mouse is placed over the subway stop icons.

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#### Figure 8 – Bus route information

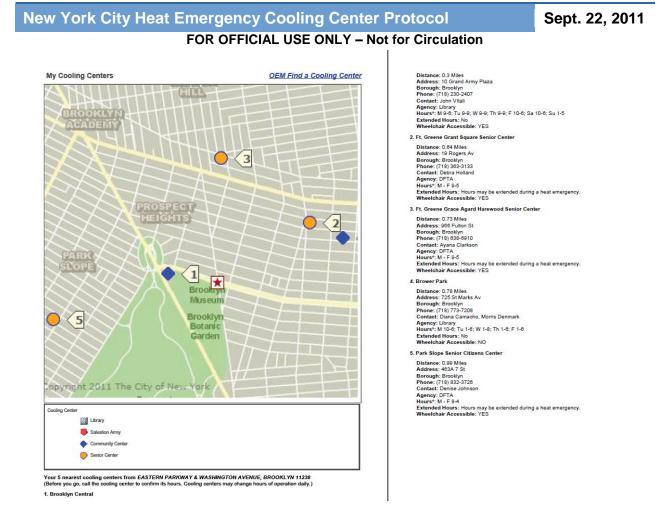
Bus routes can also be added to the map. The name of the route is displayed when the user's mouse is placed over a line.

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#### Figure 9 – Printing

Users can create a printer-friendly map and list of their Cooling Center results by clicking the printer icon found at the upper left hand corner of the map. When this icon is clicked, the user will be prompted to enter a title for their map.



#### Figure 10 – Printer-friendly map

The user's map is generated as a PDF and printed through Adobe Reader. A two-page file is created, providing a full-page map view and the complete information for each location. (The Finder includes a link to download Adobe Reader, if needed.)

Search | Email Updates | Contact Us .gov Residents | Business | Visitors : Government : Office of the Mayor OEM New York City Office of Emergency Management GO ≈ Find a Cooling Center Home About OEM At this time, the OEM Cooling Center application is NOT Get Prepared. Get Involved. activated. A cooling center is a facility, such as a senior center or community center, where people may go to NYC Hazards enjoy air-conditioned comfort during a heat emergency. For Businesses There are scores of cooling centers around the City, most of which are open during regular business News & Events hours in case of a heat wave. Contact OEM Learn more about extreme heat and ways to stay cool Follow us on: 눝 🚮 🚾 

#### Figure 11 – Inactive Finder

A message explains the Finder's unavailability when the application is not live. While there is no link to the application available on the OEM website outside of Heat Events, users may still access the page through bookmarks and web searches year round.

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## Annex C: Human Services Heat Plan Activation Checklist

## **Overview**

This checklist is used by the Human Services Emergency Support Function (ESF) Coordinator during a Heat Emergency to guide his or her tasks and objectives. Human Services ESF is the primary ESF for Cooling Center tasks under the Heat Plan. While this document is designed to compliment the Heat Emergency Cooling Center Protocol, it also contains additional responsibilities found in other sections of the Heat Plan.

# Procedure 1: Opening Cooling Centers

The process of opening Cooling Centers may begin several days before the official activation of the New York City Heat Emergency Plan. The below tasks reflect the Opening Procedure and other details found in **Activation Phase, Procedure 1: Opening Cooling Centers** in the Heat Emergency Cooling Center Protocol.

## ✓ Tasks

- Give Cooling Center Partners a "heads-up" call if Heat Plan Activation seems likely
  - Make positive contact with all Cooling Center providers (Dept. for the Aging, New York City Housing Authority, Salvation Army, New York Public Library, Brooklyn Libraries, Queens Library, Dept. of Parks and Recreation)
  - Prompt Cooling Center Partners to prepare for the activation of their facilities as Cooling Centers
  - Ensure that Cooling Center Partners will be on the Advance Warning System calls for this event
- □ Prepare for the Heat Emergency Steering Committee Conference Call (Heat Call)
  - Gather the following information in preparation for the Heat Call, if available:
    - Count and locations of Cooling Centers
    - Advance Warning System (AWS) messaging updates
    - AWS call schedule
- Attend the Heat Call and gather emergency and hazard information
  - Collect the following information to report on during the Advance Warning System (AWS) calls and to include in AWS messages:
    - Temperatures and heat index
    - NWS Products (heat advisories, air quality alerts, etc)
    - Estimated length of heat emergency

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- Health alerts
- Begin process of identifying Cooling Centers with Dept. for the Aging, New York City Housing Authority, Salvation Army, New York Public Library, Brooklyn Libraries, Queens Library, Dept. of Parks and Recreation.
  - •If Cooling Center activation is requested by the Mayor, the OEM Commissioner, OEM First Deputy Commissioner, or the EOC Team Leadership, you should:
    - Contact Cooling Center Partners to officially request use of their facilities as Cooling Centers
    - Give Agencies at least 24 hours to activate Cooling Centers on weekdays, and 48 hours on weekends
- Confirm Cooling Center locations to open the following day with Dept. for the Aging, New York City Housing Authority, Salvation Army, New York Public Library, Brooklyn Libraries, Queens Library, Dept. of Parks and Recreation
  - Cooling Center Partners provide Human Services with lists of locations that will open, confirming:
    - •Functioning air conditioning
    - Staff available
    - •Extended hours of operation, if requested
- □ Provide GIS with lists of open and closed Cooling Center locations
  - Have GIS update and confirm data in the Cooling Center Finder
  - Confirm process for updating data with GIS (when locations turn off and on)
  - Confirm time that Cooling Center Finder will be turned on
  - Request the creation of daily lists of open centers to provide to NYPD, ConEd, and LIPA/National Grid (Rockaways only for LIPA/National Grid)
  - Request regular reports of the number of centers open per agency and borough, and the number of centers accessible for people with disabilities
- Provide Utilities and Public Safety ESF Coordinators with daily lists of open centers
  - •Utilities ESF provides list to ConEd and LIPA/National Grid
  - Public Safety ESF provides list to NYPD
- Coordinate Cooling Center-related information with the Public Information Officer (PIO)and the External Affairs ESF Coordinator
  - Inform them of Advance Warning System and/or Cooling Center Activation
  - •Request that Cooling Center Finder is made available on OEM website
  - Monitor messaging and press releases from External Affairs and PIO to help shape AWS products

## Procedure 2: Monitoring Cooling Centers

While the New York City Heat Emergency Plan is activated and Cooling Centers are operating, it is the responsibility of the Human Services ESF-6 Coordinator to monitoring their continuing activation and addresses any issues that may arise. The below tasks reflect the procedure tasks

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details found in **Activation Phase, Procedure 2: Monitoring Cooling Centers** in the Heat Emergency Cooling Center Protocol.

## ✓ Tasks

- Continually confirm Cooling Center operation status and timeline with each relevant Cooling Center partner (Dept. for the Aging, New York City Housing Authority, Salvation Army, New York Public Library, Brooklyn Libraries, Queens Library, Dept. of Parks and Recreation)
  - Cooling Center Partners should provide operational information for each facility, including:
    - Hours of operation
    - Potential for extended hours of operation
  - •Agencies must notify OEM immediately of operational issues at their facilities which cause the centers to close to the public
- Derive Provide GIS with updates on information in the Cooling Center Finder
  - •Centers that have closed that must be removed from the Finder immediately
  - Centers that have been added
  - •Centers with changes to their operating hours
  - •Corrections to any facility information, including address, accessibility, etc.
- Continue to attend daily Heat Calls and gather emergency and hazard information for Advance Warning System messages and calls

## **Procedure 3: Emergency Messaging**

Advance Warning System (AWS) emails and Conference Calls are one of the primary ways information about Cooling Centers and heat hazards are communicated to people with special needs. The Human Services ESF-6 is the lead for all AWS activities. The below tasks reflect the procedure tasks details found in Activation Phase, Procedure 3: Emergency Messaging in the Heat Emergency Cooling Center Protocol.

## ✓ Tasks

- Initiate Advance Warning System (AWS) Conference Call by contacting AWS Conference Call agencies
  - Notify team leadership of intention to hold AWS Conference Call and send messages
  - Positive contact must be made with all Conference Call participants
  - Send email notification of call to all appropriate primary contacts and copy the secondary contacts
  - Inform AWS partners of date, time, and phone number of AWS call
  - Schedule a consistent time and phone number for at least 5 days. Request that MIS set up a conference call bridge for at least 25 people for one hour (though most calls last 15-20 minutes)

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- Primary contacts that do not respond to initial email must receive follow up phone calls
- •Note: The AWS Contact List can be found on the intranet's EOC page in the Human Services Folder (under ESF Resources)
- Conduct daily Advance Warning System Conference Call
  - Report any weather or health advisories
  - Report on the operational status of Cooling Centers
  - Request that partner agencies notify their provider agencies and consumers about the emergency and other information
  - Ask partner agencies to report on the results of their outreach efforts (number of times information was sent out and estimated clients reached)
  - Ask partner agencies to maintain essential services and activate continuity plans, if necessary
- Send regular Advance Warning System messages concerning Cooling Center operations and heat hazards
  - Draft an AWS email for each day of Cooling Center operation (a single message may be used to notify partners of multiple days of operation)
  - Include the following in the AWS email:
    - Weather and other emergency information relevant to populations with special needs
    - Notification of Cooling Center operations if applicable
    - Heat safety tips (Heat Tips for Special Needs Service Providers document and tips found in Annex F)
  - Review email message with entire Human Service Unit, if available
  - Ask Health and Medical ESF Coordinator about any public health emergency information, and messages to aim at hospitals, primary care centers and homebased care service providers.
  - Notify External Affairs ESF Coordinator that an AWS message will be sent
  - Use AWS website (http://advancewarningsystemnyc.org) to send message to all users

## **Coordination with other ESFs**

The following tasks should be accomplished with other ESFs during a Heat Emergency:

## ✓ Tasks

#### GIS

Provide GIS with continuously updated Cooling Center information and assist in the management of the Cooling Center Finder

#### **External Affairs ESF**

- Inform PIO and External Affairs that AWS has been activated and messages will be sent out as part of overall OEM public messaging efforts
- If necessary, help to develop 311 script for use with the Cooling Center Finder and other public messaging to instruct the public about Beat the Heat tips

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□ If requested or needed, coordinate the deployment of CERT teams for staffing cooling centers

#### Health and Medical ESF

- Inquire about public health issues related to heat and other environmental factors
- □ Coordinate with the Home Based Care Alliance

#### **Utilities ESF**

- Identify power outages or services disruptions at Cooling Center locations to Human Services Unit
- Coordinate with Utilities ESF for receiving updates from National Grid/Key Span and Con Ed about power outage zones and customer outreach efforts
- Ensure daily distribution of Cooling Center lists to utilities providers

#### Public Safety ESF

Ensure daily distribution of Cooling Center lists to NYPD

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# **Coordination with Partner Agencies**

The following tasks should be accomplished with OEM partner agencies during a Heat Emergency:

## ✓ Tasks

#### ALL PARTNERS

Ask if they have any resource requests or concerns

#### American Red Cross of Greater New York

- □ Inquire about heat-related mass care outreach efforts, if necessary
- Request water and other mass care supplies be put on standby
- Request staffing for Cooling Centers, if necessary

#### Administration for Children Services

Put on standby for any issues dealing with minors at schools or that show up at Cooling Centers

#### Catholic Charities, Archdiocese of NY / Catholic Charities, Brooklyn Queens

Inquire about:

Outreach efforts

Any power outages or disruptions in service

#### Mayor's Community Affairs Unit

Ask if there are any outdoor events or public events planned

#### Department for the Aging

- Request to use their facilities as cooling centers, if necessary
- Request to provide staffing for cooling centers, if necessary
- Inquire about mass care outreach efforts and disruptions in elderly programs
- Inquire about any cooling center staffing and power issues
- Inquire about attendance statistics
- □ Inquire about outreach to homebound/vulnerable populations
- Distribute heat tips and other information to clients

#### **Department of Homeless Services**

- Inquire about:
  - Outreach efforts
  - Attendance at shelters
  - "Code Red" status

#### **Department of Education**

- □ Inquire about whether:
  - School is in session
  - There are school or PSAL events scheduled
  - School safety plans have been activated
  - There are any Special Needs schools offline

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DOE is conducting outreach to at-risk individuals

#### Department of Health and Mental Hygiene / New York State Department of Health

- Ask if there are any weather-related or environmental health advisories
- Ask if there are disruptions in service to nursing homes, hospitals, or home-based care organizations

#### End Stage Renal Disease Network

- Inquire about:
  - Outreach efforts
  - Any power outages or disruptions in service

#### **Health and Hospitals Corporation**

Inquire about:

Outreach efforts for their clients

Homebound/Homecare issues

Power outages or disruptions in service

#### Home Based Care Alliance

- Coordinate with Health and Medical ESF-8
- □ Inquire about:

Any Homebound/Homecare issues

Hospice facility issues

Issues with accessibility for employees

#### Human Resources Administration

Inquire about:

Outreach efforts for their clients

Any scheduled special events

#### Libraries (New York Public Library, Brooklyn Public Library, Queens Library)

- Request to use their facilities as cooling centers, if necessary
- Request to provide staffing for cooling centers, if necessary
- Any staffing and power issues

#### Mayor's Office for People with Disabilities

□ Inquire about outreach efforts and questions from the public

#### MTA-Paratransit (Access-A-Ride)

□ Inquire about:

Any disruptions or changes to services

Problems with call center

Changes in ability to meet scheduled appointments

Extra vehicles on the road

Problems with vehicles breaking down / getting stuck

Demand levels

#### New York City Housing Authority

Request to use their facilities as cooling centers, if necessary

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- Request to provide staffing for cooling centers, if necessary
- □ Inquire about any cooling center staffing and power issues
- Inquire about attendance statistics

#### New York State Office of Mental Health

□ Inquire about:

Outreach efforts

Any power outages or disruptions in service

#### Office for People with Developmental Disabilities

Inquire about:

Outreach efforts

Any power outages or disruptions in service

#### Salvation Army Greater New York Division

- Request to use their facilities as cooling centers, if necessary
- □ Request to provide staffing for cooling centers, if necessary
- □ Inquire about any cooling center staffing and power issues
- □ Inquire about attendance statistics
- Request water and other mass care supplies be put on standby

#### **Veterans Affairs**

- Inquire about:
  - Outreach efforts
  - Any power outages or disruptions in service

## Annex D: GIS Support Tasks for the **Cooling Center Finder**

## **Overview**

OEM maintains a link to the Cooling Center Finder application on its website. When Cooling Centers are opened the GIS group activates the application and the External Affairs ESF changes OEM's web site to feature a link to the application which can be viewed at http://gis.nyc.gov/oem/cc/index.htm.

Every Spring OEM provides DoITT with an updated list of Cooling Centers which is loaded into the application. However, on the days of operation, this list must be verified for each Center. GIS uses an administration tool to remove Centers from the list or modify their information according to the information provided by Human Services.

## 🗹 Tasks

#### Prepare Cooling Center Finder data

Request Cooling Center opening status from Human Services

Update status in the Cooling Center Finder

Update status in the GIS Cooling Center dataset

Report full list of Cooling Center status to Human Services

#### Activate the Cooling Center Finder

Turn on the Cooling Center Finder at 8pm the evening before or as directed Send an e-mail summarizing cooling center status to Executive staff, Team Leadership, Planning section, Human Services ESF, External Affairs ESF, Press, and the GIS group

Create spreadsheets of open facilities including Con Edison network and send to Human Services ESF for distribution to NYPD, Con Edison and LIPA

#### Maintain the Cooling Center Finder data

Receive notification from Human Services of changes in Cooling Center status Update status in the Cooling Center Finder

Update status GIS dataset

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#### Prepare and distribute information products

At 1200, 1600, 2000 each day send an e-mail summarizing cooling center status to Executive staff, Team Leadership, Planning section, Human Services ESF, External Affairs ESF, Press, and the GIS group

 Each evening create updated spreadsheets of facilities including Con Edison network and send to Human Services ESF for distribution to NYPD, Con Edison and LIPA

#### Deactivate the Cooling Center Finder

Turn off the Cooling Center Finder as directed

 At the end of the activation report to Human Services all cooling centers that are offline, including long term closures FOR OFFICIAL USE ONLY – Not for Circulation

## **Annex E: Data Collection Samples**

## **Overview**

Cooling Center data is collected and shared in two ways, which are illustrated below.

The OEM Cooling Center Finder was activated for Tuesday 7/12 at 0800: http://gis.nyc.gov/oem/cc/index.htm

444 centers are open on Tuesday 7/12.328 of the centers are wheelchair accessible.

Summary of All Cooling Centers									
Selection	OPEN	CLOSED	Total						
	444	81	525						
by Borough									
Manhattan	102	121							
Bronx	81	17	98						
Brooklyn	120	31	151						
Queens	117	7	124						
Staten Island	24	31							
by Agency									
NYCHA	0	65	65						
DFTA	247	6	253						
Library	180	4	184						
Salvation Army	17	2	19						
DPR	0	4	4						

#### Summary of All Cooling Centers

#### Figure 12 – Sample GIS Cooling Center Status Summary

When Cooling Centers are active, GIS creates daily reports that show the number of total open facilities and the number that are accessible, along with breakdowns by borough and by Cooling Center Partner. These reports are internal to OEM.

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Date	Heat Event	Total # Centers	Accessible Centers	DFTA Centers	DFTA Centers	NYCHA Centers	NYCHA Centers	Total Census	DFTA	DFTA Extended Census	DFTA Daily Census (Total)	NYCHA Census	NYCHA Extended Census	NYCHA Daily Census (Total)	Case Management Contacts	Notes
	Heat Event			(regular)	(extended) 17	(regular)	(extended)		Census				Census	· ·		Notes
Wednesday, 6/8	1	402	300	197		6		23,899	23,183	683	23,866	33		33	2,768	
Thursday, 6/9	1	409	303	198	120	1		26,159	21,996	4,140	26,136	23		23	2,478	
Tuesday, 7/12	2	450	328	248		05		28,033	28,033		28,033	100		100	3,033	Mid days antipation
Tuesday, 7/19	3	504	384	244 247		65		28,434	28,328		28,328	106		106		Mid-day activation
Wednesday, 7/20	3	508	326		100	63		29,095	28,904	5.470	28,904			191	2,241	
Thursday, 7/21	3	504 498	385 383	242 241	163 166	62 61	62 61	33,269 35,078	27,425	5,478 7,037	32,903 34,627	366 451		366 451	2,227	
Friday, 7/22	3	298	244	98	100	60	01	6,994	27,590	7,037	6.359	635		635	2,449	
Saturday, 7/23	3			98 50		56			6,359			330		330		
Sunday, 7/24	3	106	95	00		00		3,683	3353		3,353	330		330		
Totals To Date								214 644	195,171	17,338	212,509	2,135		2,135	15,196	
Days Operational	9							214,044	100,111	11,000	212,000	2,100		2,100	10,100	
Average Centers																
Open		409	305	196	117	48	62									
Average Daily																
Numbers								23,849	21,686	4,335	23,612	267		267	2,533	

#### Figure 13 – Sample Cooling Center Census Summary

Throughout the season, Human Services collects and compiles daily census information for the Cooling Centers, as well as data on case management contacts to vulnerable clients regarding the heat. This information is totaled to show the season to date. This information is kept internal to OEM and used for planning purposes and press inquiries.

## **Annex F: Heat Safety Tips**

## **Overview**

The following heat safety information can be shared as part of Advance Warning System messages about extreme heat and Cooling Centers. It may also be used as part of other communication with the public.

#### EXTREME HEAT AND YOUR HEALTH

#### **Quick Heat-Beating Tips**

- If possible, stay out of the sun. When in the sun, wear sunscreen (at least SPF 15) and a hat to protect your face and head.
- Use an air conditioner if you have one. Set the thermostat no lower than 78 degrees.
- If you do not have an air conditioner, keep rooms well-ventilated with open windows and fans. Consider going to a public pool, air-conditioned store, mall, movie theater, or Cooling Center.
- Fans work best at night, when they can bring in cooler air from outside.
- Make a special effort to check on your neighbors during a heat wave, especially if they are seniors, young children, and people with special needs. Many older New Yorkers live alone and could suffer unnecessarily in the heat because they are isolated from friends and family.
- Seniors and others who may be sensitive to extreme heat should contact friends, neighbors, or relatives at least twice a day during a heat wave.
- Drink fluids particularly water even if you do not feel thirsty. Avoid beverages containing alcohol, caffeine, or high amounts of sugar. People with heart, kidney or liver disease, or on fluid restricted diets should check with their doctors before increasing fluid intake.
- Wear lightweight, light-colored, loose clothing that covers as much of your skin as possible.
- Never leave children, pets, or those who require special care in a parked car during periods of intense summer heat.
- Avoid strenuous activity, especially during the sun's peak hours 11 a.m. to 4 p.m. If you must engage in strenuous activity, do it during the coolest part of the day, usually in the morning between 4 a.m. and 7 a.m.
- Cool showers or baths may be helpful, but avoid extreme temperature changes. Never take a shower immediately after becoming overheated extreme temperature changes may make you ill, nauseated, or dizzy.
- During heat emergencies, the City may open Cooling Centers. If Cooling Centers are open, call 311 (TTY: 212-504-4115) or locate a Center online.

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#### Heat-Related Illnesses

Seek help if you feel symptoms of heat-related illness.

**Heat cramps** are muscular pains and spasms, usually in the leg or stomach muscles, resulting from heavy exertion during extreme heat. Heat cramps usually occur when the heat index is between 90 and 105 degrees. Although heat cramps are the least severe of all heat-related health problems, they are often the first signal that the body is having trouble coping with the heat and should be treated immediately with rest and fluids. Stretching, gentle massaging of the spasms, or direct, firm pressure on cramps can reduce pain. Seek medical attention if pain is severe or nausea occurs.

**Heat exhaustion** occurs when body fluids are lost through heavy sweating due to vigorous exercise or working in a hot, humid place. Blood flow to the skin increases, causing blood flow to vital organs to decrease. Symptoms include: sweating, pale and clammy skin, fatigue, headache, dizziness, shallow breaths, and a weak pulse.

Heat exhaustion should be treated with rest in a cool area, sipping water or electroyte solutions, applying cool and wet cloths, elevating the feet 12 inches, and further medical treatment in severe cases. If not treated, the victim's condition may escalate to heat stroke. If the victim does not respond to basic treatment, seek medical attention. Heat exhaustion usually occurs when the heat index is between 90 and 105 degrees.

**Heat stroke** — also called "sunstroke" — occurs when the victim's temperature control system, which produces perspiration to cool the body, stops working. The skin is flushed, hot and dry, and body temperature may be elevated. In fact, body temperature can rise so high that brain damage and death may result if the body is not cooled quickly. The victim may also be confused, develop seizures, breathe shallowly, and have a weak, rapid pulse.

Heat stroke is the most serious heat-related illness and people exhibiting its symptoms should seek emergency medical attention. Heat stroke usually occurs when the heat index is 130 degrees or higher, but can occur when the heat index surpasses 105 degrees.

#### **Ozone Levels and Your Health**

Ozone, a major component of smog, is created in the presence of sunlight by reactions of chemicals found in gasoline vapors and emissions from cars and industrial smoke stacks. Hot summer weather can increase ozone levels.

The Environmental Protection Agency monitors ozone levels and issues air quality forecasts. When ozone levels in the unhealthy range are expected, New Yorkers are advised to limit vigorous outdoor physical activity during the afternoon and early evening hours when ozone levels are at their highest. If you have asthma or other respiratory problems, stay in an area where it is cool and the air is filtered or air-conditioned. Outdoor exercise should be scheduled for the morning hours whenever possible.

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# Children are generally more at risk to the effects of ozone, especially in the summer as children tend to spend more time outdoors. People who exercise moderately (such as jogging) are also at risk, because breathing rate increases with exercise and the amount of ozone delivered into the lung per minute increases. Additionally, ozone can have a dramatic effect on people with asthma, chronic obstructive pulmonary disease, or those sensitive to ozone.

Symptoms associated with unhealthy levels of ozone include:

- Chest pain
- Coughing & wheezing
- Lung & nasal congestion
- Labored breathing
- Nausea
- Eye & nose irritation
- Faster breathing
- Sore throat

High ozone levels can also decrease lung function, increase susceptibility to respiratory infection, and aggravate asthma and other chronic lung diseases. Schedule outdoor exercise and children's outdoor activities for the morning hours. Individuals who experience respiratory symptoms or chest pain should consult their doctors.

To help reduce ozone levels:

- Avoid driving, especially on hot summer days. Use mass transit, walk, or carpool instead.
- Be careful not to spill gasoline and fill your gas tank during the cooler evening hours.
- Keep your car properly tuned and maintained.
- Seal containers of household cleaners, solvents, and chemicals to prevent evaporation of chemicals that can contribute to ozone formation.

#### MORE INFORMATION

For more information about heat safety and how you can prepare for emergencies call 311 or visit <u>www.nyc.gov/oem</u>.