

Automating Field Data Management – Heat Season 2019

Nov 20, 2019



Background

NYCEM GIS Mission

To support the decision making processes of NYC emergency management and its partners by producing reliable location-based information through the integration, analysis, and visualization of essential data distributed in the form of maps, datasets, summary metrics, and associated applications.

Background Heat Season

June - September

Heat Emergency Plan
Cooling Centers

Key Players



Extreme Heat



Extreme heat is one of the most significant hazards facing New York City, and New Yorkers are especially vulnerable to extreme heat-related hazards during the summer months. Generally, extreme heat is defined by temperatures that hover 10 degrees or more above the average high temperature for the region, last for prolonged periods of time, and are accompanied by high humidity.

On warm summer days, the city can be as much as 10 degrees warmer than its surrounding areas. The city's infrastructure — largely made up of asphalt, concrete and metal — traps the heat. This is known as the "urban heat island" effect.

Expand All

Collapse All

Know the Terms

What to Do Before Extreme Heat

What to Do During Extreme Heat

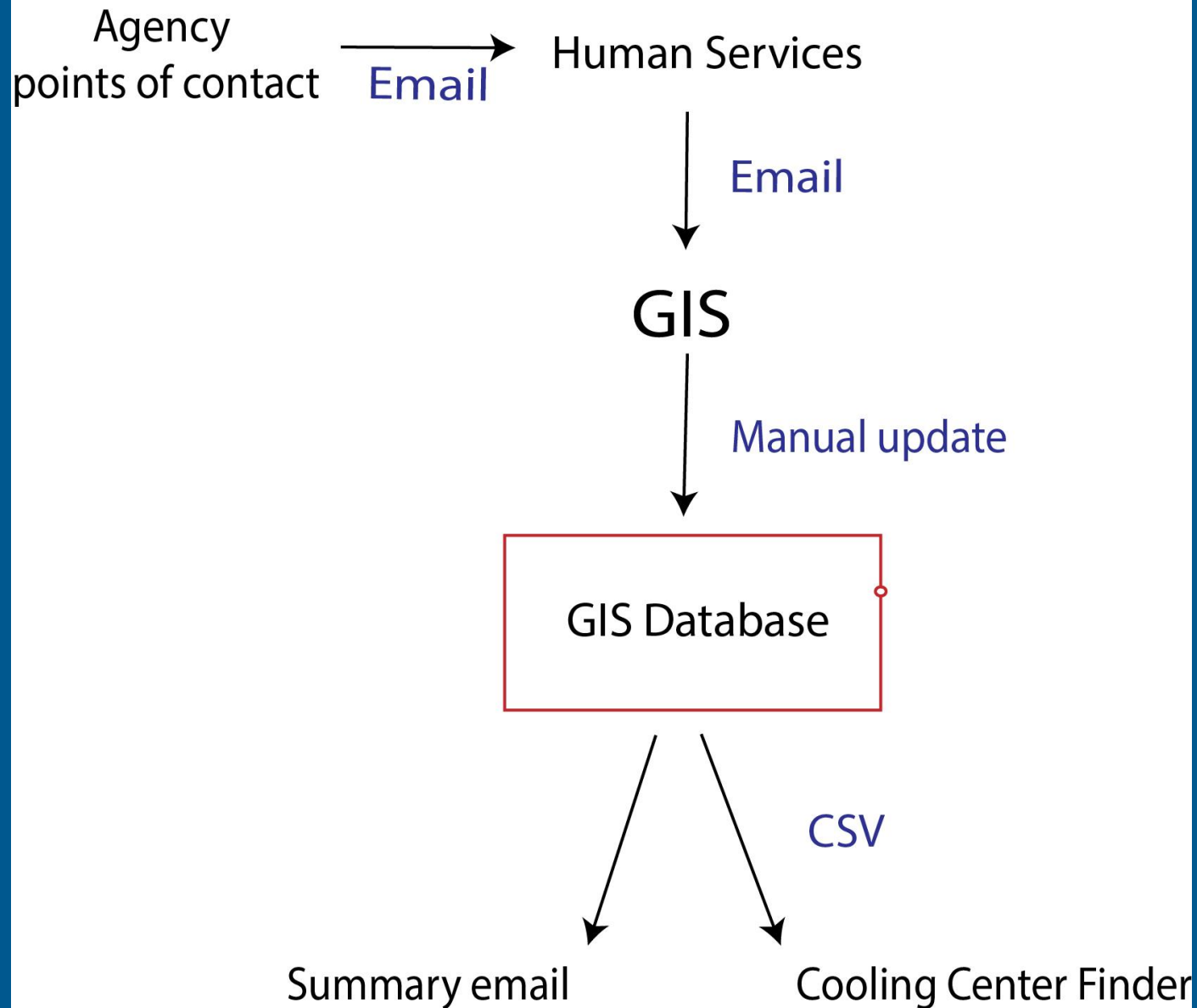
What the City Does

More Resources

- [NYC Cooling Center Finder](#)
- [Heat-related illnesses and tips](#) (NYC Department of Health & Mental Hygiene)
- Get information about ways to save energy from [Con Edison](#) and [PSEG Long Island](#)

Background

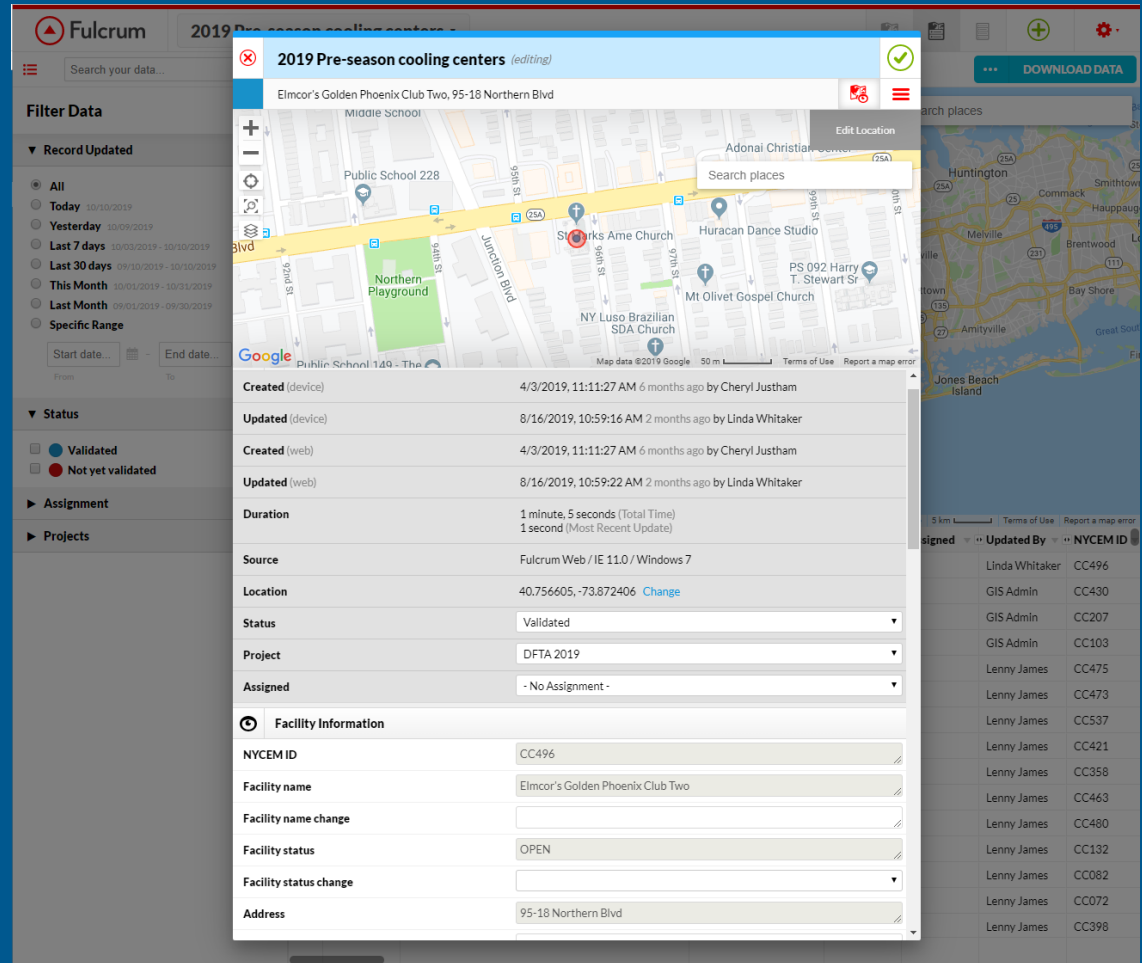
Previous Workflow



Fulcrum

Pre-season Application

- GIS uploaded last year's list of cooling centers on Fulcrum
- Partner agencies reviewed information in the beginning of the season
- Downloaded data and set up in database



NYC Emergency Management

❌ 2019 Cooling centers - Activation (editing)

Hope Gardens Multi Service NSC, 195 Linden St., Brooklyn, 11221, CC597

EDIT LOCATION

Friday hours	<input type="text"/>	?
Date for Saturday special hours	<input type="text" value="mm/dd/yyyy"/>	?
Saturday hours	<input type="text"/>	?
Date for Sunday special hours	<input type="text" value="mm/dd/yyyy"/>	?
Sunday hours	<input type="text"/>	?

☒ **Closure - If the center is closed on a day when it's normally opened, the short or long-term closure field must be 'Yes' for the center to be closed on the finder.**

Long-term closure	<input type="text"/>	?
Short-term closure -	<input type="text"/>	?


☒ **Other Information**










Handicap access	<input type="button" value="Yes"/> <input checked="" type="button" value="No"/>
Extended hours	<input type="text" value="No"/>
Entrance info	<input type="text"/>
AC type	<input type="text" value="HVAC"/> <input type="text" value="Window unit(s)"/> <input type="text" value="Other"/>
Capacity	<input type="text"/>

Fulcrum

Activation Application

Partner agencies entered changes of cooling center hours at the start and throughout the activation

 **Special hours changes by date and day of week - Leave as-is if hours are not changing**

Regular hours	M - F 9a-5p		
Date for Monday special hours	*	07/22/2019	   
Monday hours	CLOSED		
Date for Tuesday special hours	*	07/23/2019	
Tuesday hours	9a-3p		
Date for Wednesday special hours	*	07/24/2019	
Wednesday hours	9a-3p		

Workflow

Current Workflow

Agency points of contact
Fulcrum form

UPDATE SCRIPT

NYCEM

GIS Database

NYCEM dashboard

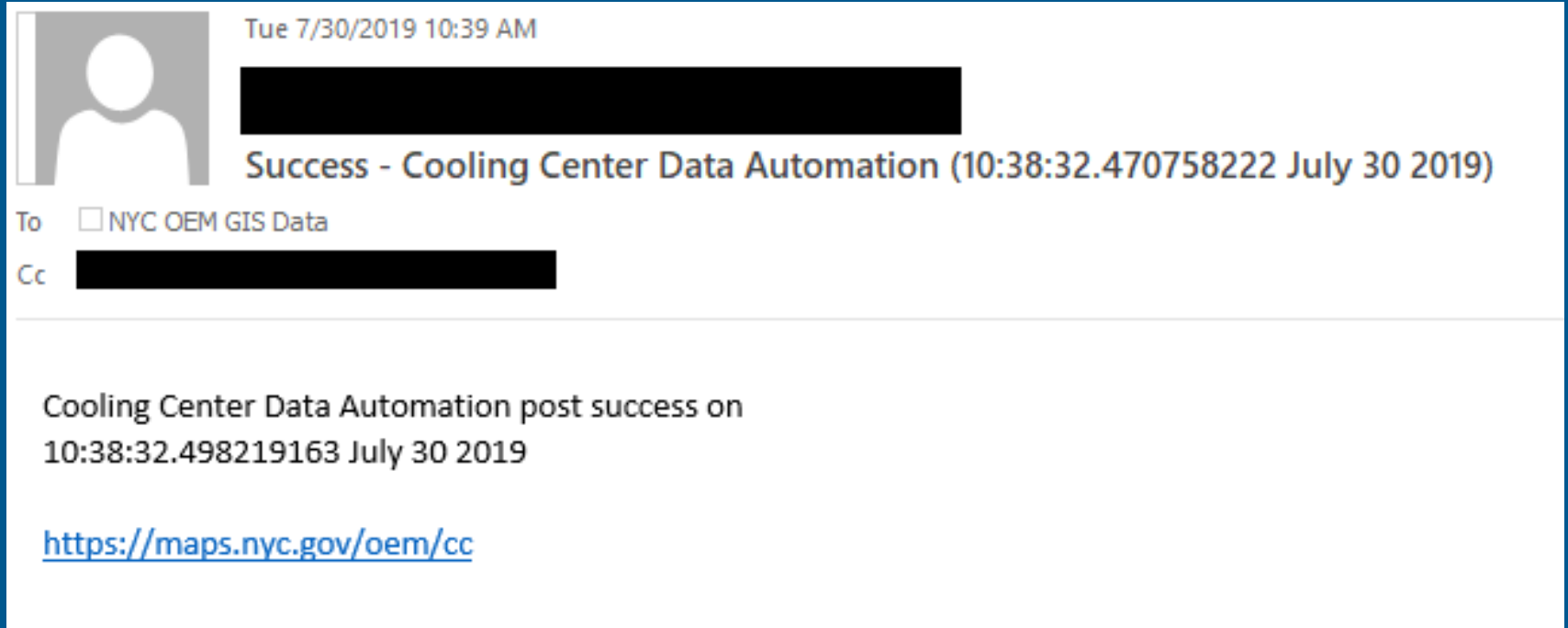
Collector
application

UPDATE SCRIPT

Cooling Center Finder

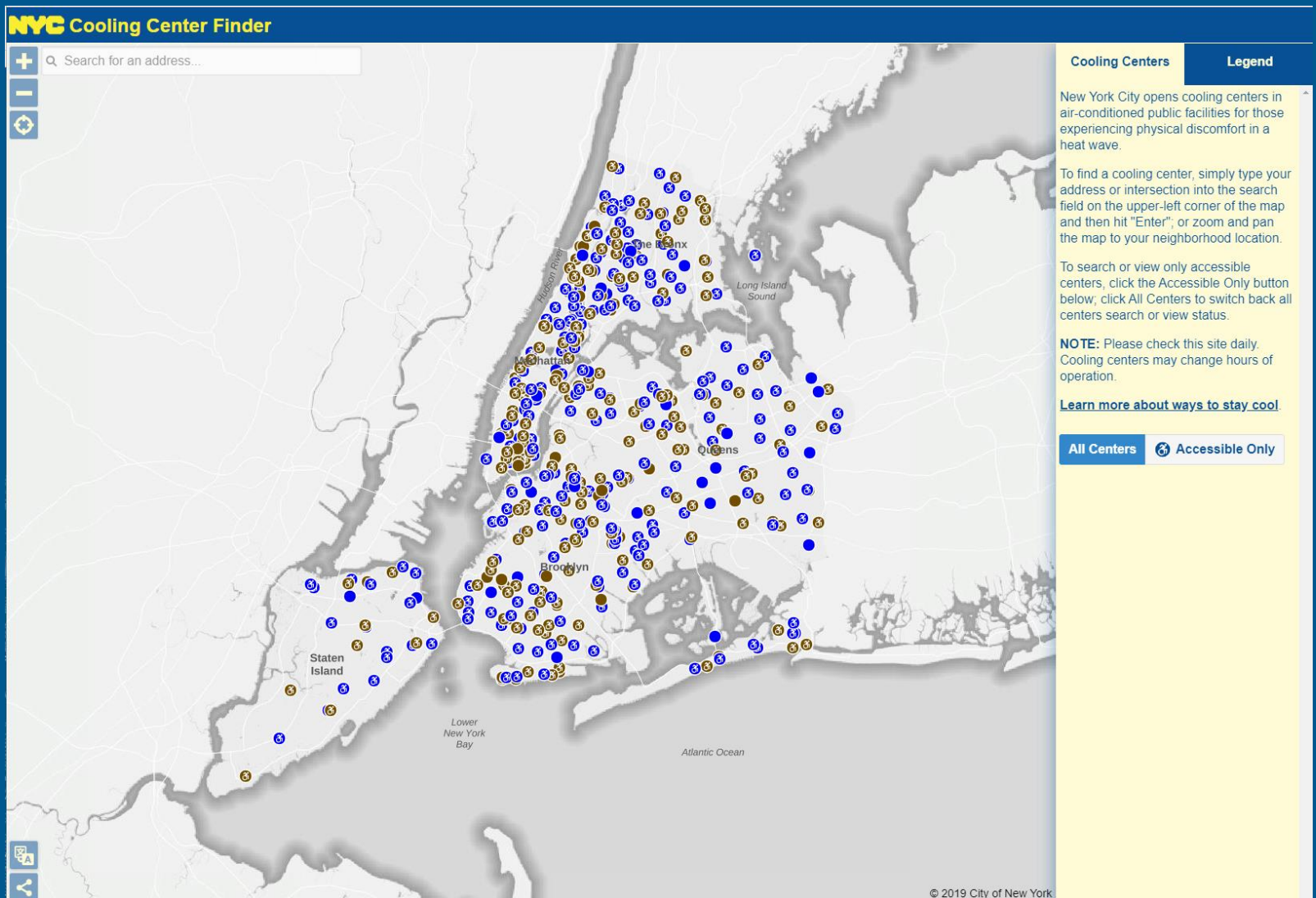
Output

GIS team



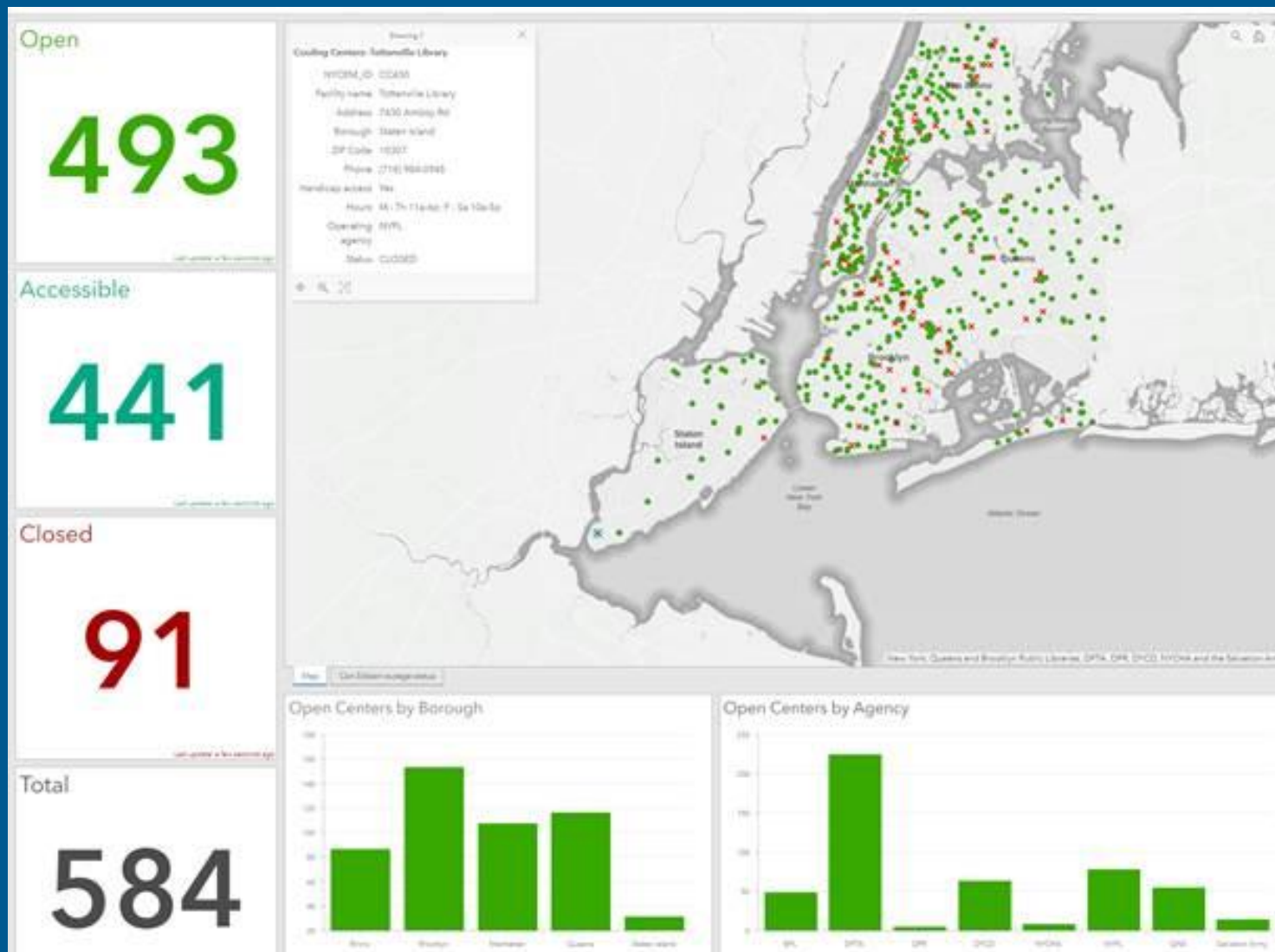
Output

Cooling Center Finder

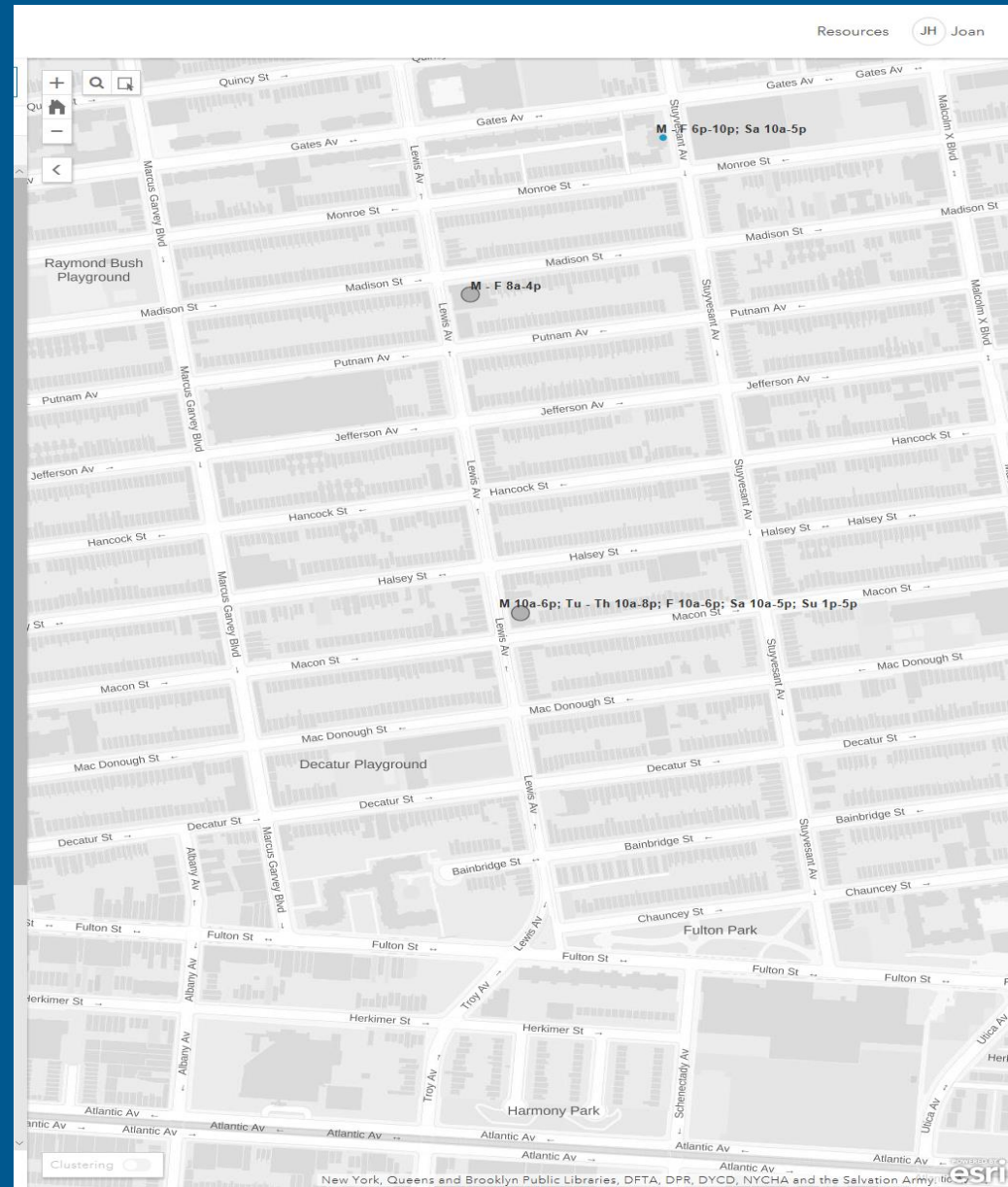
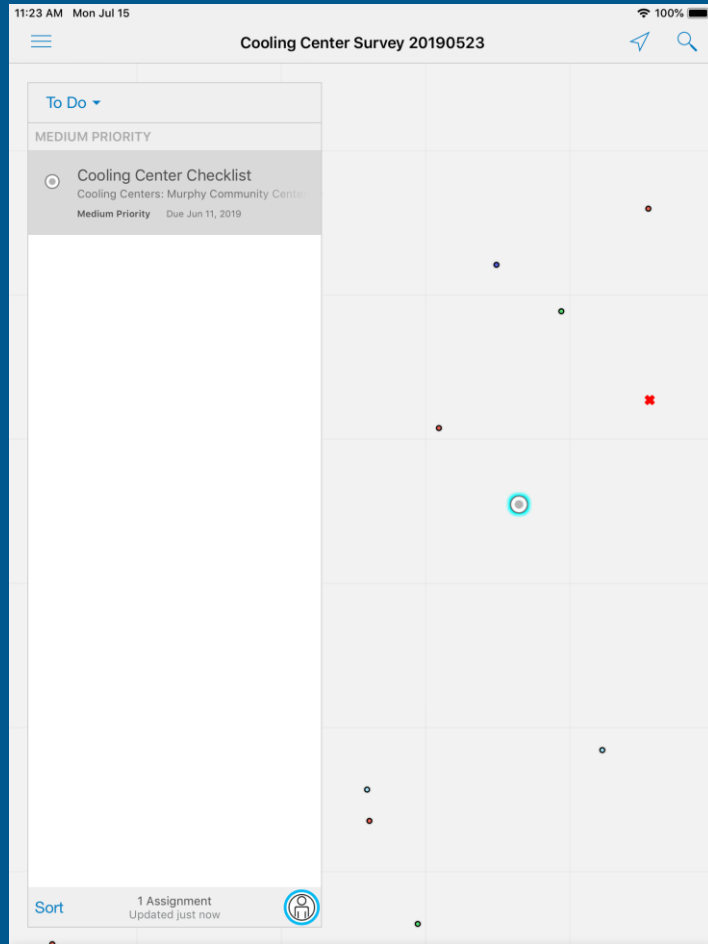


Output

ArcGIS Online dashboard for NYCEM



ArcGIS Collector and Workforce NYCEM Site Visits



Lesson Learned

- Fulcrum licenses
- System based on partner parameters
- More specific data questions

Coming Soon...

- Refining backend process
- Accessibility on Finder
- Analysis and field collection tools

QUESTIONS?

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