

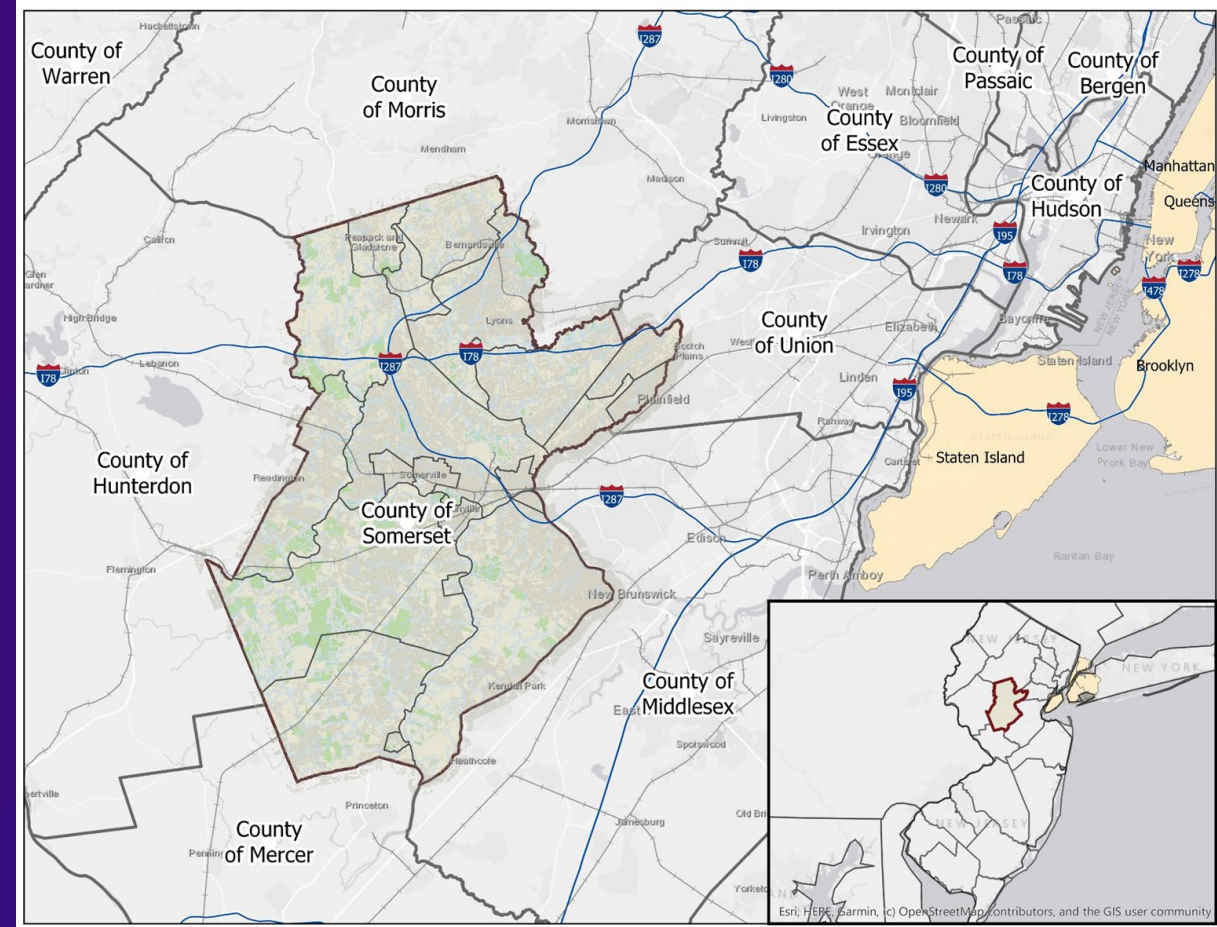
Utilizing Survey123 and Dashboards for Environmental and HAZMAT Investigations

Somerset County, NJ



Somerset County, NJ

- Northern NJ county - 1 of 2 landlocked counties in NJ - Greater NY Metropolitan Area
- County seat is Somerville
- Population: 330,000+
- Rich Native American, Revolutionary, Canal Age history
- Mixed landuse of densely populated municipalities adjacent to open space
- Natural topography includes Sourland Mountains, Raritan River, historic canals, and over 450 farms



Who We Are



Lynette Dooley - Department of Health



Jon Durland - Emergency Management



Mike Stepowyj - GIS



Health and HAZMAT

County Environmental Health and
Hazardous Materials Emergency Response Programs



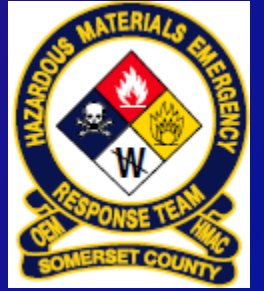
County Environmental Health Act (CEHA)

Provides environmental protection services through an annual grant agreement with the New Jersey Department of Environmental Protection.

- **Air Quality**
 - B-Sources
 - Dry Cleaners
 - Odor Investigations
 - Noise Pollution
- **Water Pollution**
- **Safe Drinking Water**
- **Solid Waste Management**
 - Illegal Dumping
 - Recycling Compliance
- **Motor Vehicle Idling Enforcement**
- **Pesticide Application Inspections**
- **Hazardous Materials Response**



Somerset County Hazardous Materials Emergency Response Team (SC HMERT)



The SC HMERT is responsible for the mitigation of hazardous materials spills, releases, or other related threats.

- Transportation incidents (roadway, railway, aviation, etc.)
- Fixed facility incidents and emergency planning / walkthroughs
- Environmental emergencies

On average, SC HMERT manages ~100 incidents annually across Somerset County & mutual aid jurisdictions

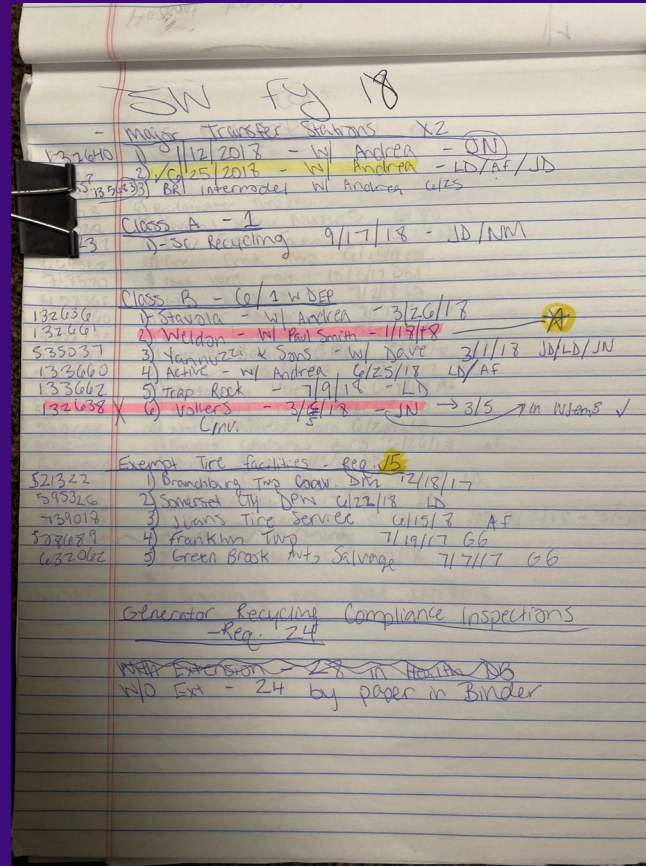


Old Workflow

Paper records

Access database/excel files

CASE TRACKING BROWSE FORM						
COMPANY NAME	CONSOLIDATED CASE NUM	GEOGRAPHICAL AREA	DATE NOTICE MAILED	DATE RECEIVED	HEARING DATE	RECORD COUNT: 3929
DAUMAN	hd-98-05-05-1123	MIDDLESEX	5/12/1998	5/15/1998	7/7/1999	
RAPID		MIDDLESEX	2/15/1999		3/17/2000	
C.F.	hd-99-02-01-0907	SOUTH PLAINFIELD	2/16/1999		8/8/1999	
M	hd-00-01-14-0917	MIDDLESEX	3/8/1999	3/9/2000	3/17/2000	
D	hd-99-04-05-0845	CARTERET	4/12/1999	4/17/1999	7/7/1999	
B	hd-99-04-19-0950	MT LAUREL	5/3/1999	5/18/1999	6/1/1999	
B	HD-99-04-19-0940	MT LAUREL	5/3/1999	5/18/1999	6/1/1999	
C		JACKSON	5/3/1999	5/7/1999	5/20/1999	
JR	hd-99-05-12-1000	SCOTCH PLAINS	5/21/1999	5/27/1999	6/23/1999	
J	HD-99-05-17-0900	MONMOUTH COUNTY	5/21/1999		6/30/1999	
A	hd-99-05-15-0830	EWING	5/21/1999	5/25/1999	5/25/1999	
C	hd-99-05-17-1445	PERTH AMBOY	5/21/1999	5/25/1999	6/2/1999	
N	HD-99-05-06-1058	PISCATAWAY	5/21/1999		6/30/1999	
D	HD-99-06-21-0849	UNION COUNTY	6/19/1999		7/28/1999	
D	HD-99-05-25-0900	UNION COUNTY	6/21/1999	6/22/1999	7/28/1999	
P		BRANCHBURG	6/21/1999	6/22/1999	7/21/1999	
RA		EN BROOK TOWNSHIP	6/21/1999	6/26/1999	7/21/1999	
DIM	HD-99-06-12-0730	UNION COUNTY	6/21/1999	6/22/1999	7/28/1999	
DOM	HD-99-06-11-0830	HILLSIDE	6/21/1999	6/22/1999	7/28/1999	
MIDCO	hd-99-06-14-0800	MIDDLESEX	6/21/1999	6/22/1999	9/22/1999	
DANIEL	hd-99-05-14-0835	SOMERSET CITY	6/21/1999		11/1/2001	



COMPLAINTS ADD

PRINT ADDRESS

LOCATION TYPE/ACTION PICTURES

FILE NUMBER: FIELD NOV CEHA NON CEHA INTAKE ONLY

DATE RECEIVED: SOURCE: INITIAL INVESTIGATION DT:

CONTACT INFORMATION:

NAME: ADDR: CITY: STATE: NJ ZIP: HOME PHONE: WORK PHONE: INSPECTOR: STATUS:

PROPERTY/LOCATION OF CONCERN:

NAME: ADDR: CITY: STATE: NJ ZIP: HOME PHONE: WORK PHONE: GEOGRAPHICAL AREA:

PROPERTY/OWNER INFORMATION:

TOWN CODE: LOT #: BLOCK #: QUAL: OWNER NAME: OWNER ADDR: OWNER CITY: OWNER ZIP: PROPERTY LOCATION:

ADD RECORD COPY DATA SELECT DATA FROM GIS CLOSE FORM

COMPLAINTS ADD

PRINT ADDRESS

LOCATION TYPE/ACTION PICTURES

TYPE: STATUS: ACTION: INVESTIGATION DT: NOV DATE ISSUED: SUMMONS DATE: TIME SPENT HH: MM: NATURE OF COMPLAINT: FINDINGS / ACTIONS:

Record: 1 of 1 No Filter Search

ADD RECORD COPY DATA SELECT DATA FROM GIS CLOSE FORM

Problem: Need a more efficient way to record investigations in the field, revisit previous reports, and map and perform analytics on entries. Eliminate paper and outdated records!



ArcGIS Online Solution

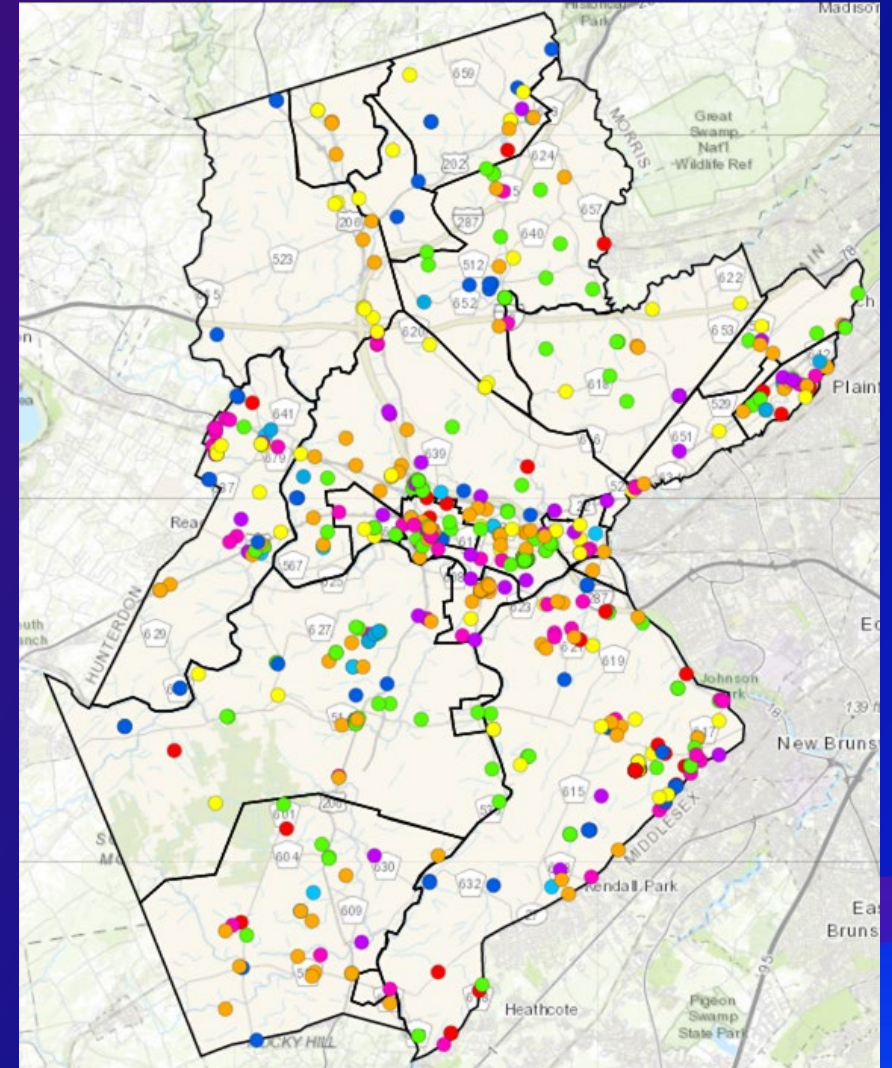
Survey123 Forms and Integration with ArcGIS Dashboards



Survey123 On Site Data Collection

June 2019 - July 2020 Fiscal Year

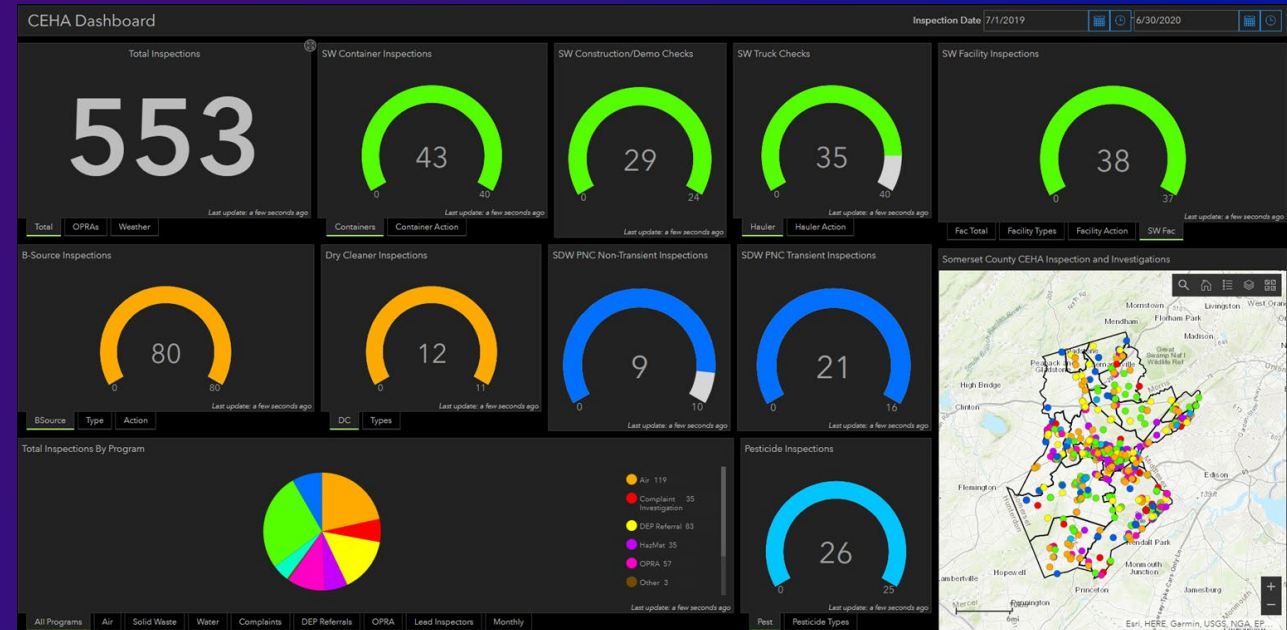
- Survey123 standardized inspection or investigation form
- Inspectors populate this form in the field with mobile devices and submit data to ensure that site visits and efforts are not being lost or fallen through the cracks
- Add photos
- Edit from their desktop as additional information is received or the case is closed out.



ArcGIS Dashboard for Data Visualization - CEHA

Fiscal Year 2020 (July 2019 - June 2020)

- Data figures populated with S123 hosted feature layer
- Figures filters for investigation date, type, location
- Serves as the end platform status reporting for various County personnel



ArcGIS Dashboard for Data Visualization - Hazmat



2020 HazMat Dashboard Data



Benefits of Survey123 and Dashboard Workflow

- Allows easy retrieval of data for quarterly or annual reports
- Utilized to complete OPRA requests
- Custom queries of data by dates, municipalities, investigation types
- Simple, clean presentation of data for County management and decision-makers
- Overall better management and data visualization, allows personnel to see trends and records spatially to better deploy resources to problem areas

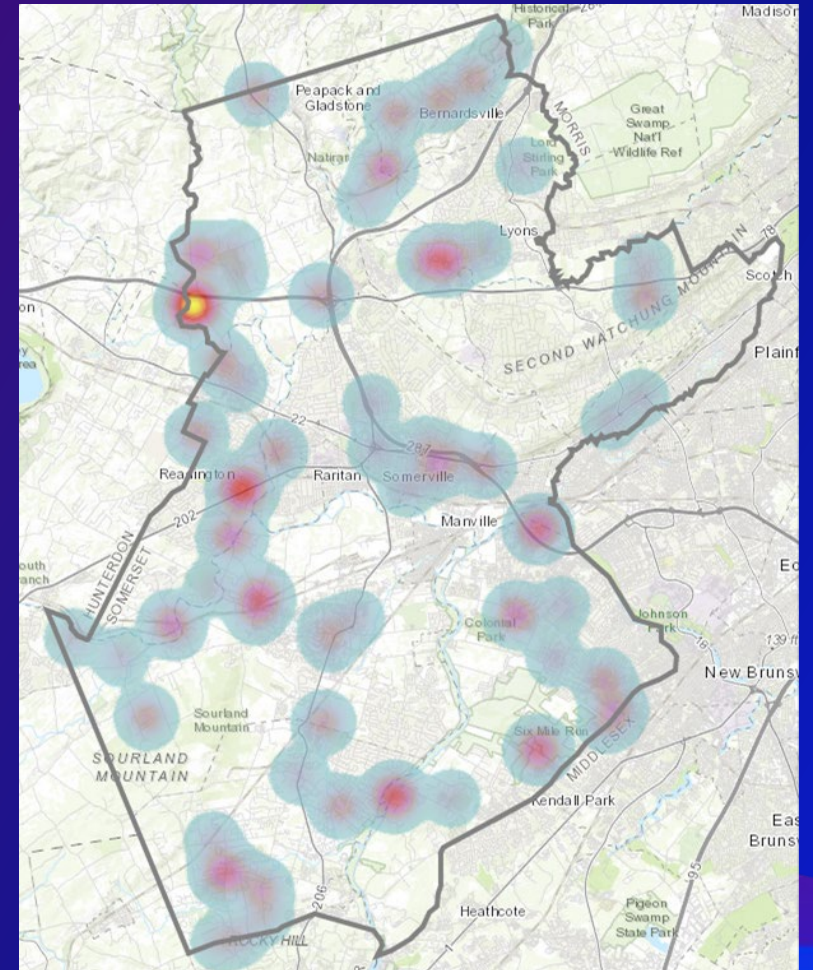


Future Use Cases

Future Use Cases

- Environmental compliance targeting tool
- Aids in assigning resources for future incidents
- Heat mapping
 - Safe Drinking Water
 - Illegal dumping
 - Idling enforcement
- Case Tracking to filter by what cases are closed and what requires additional follow-up

Heat Map of Safe Drinking Water Inspections To Assist in Identifying Future Unpermitted Facilities



The background features a stylized aerial map with red and blue overlays. A large yellow arrow with a black outline points from the bottom left towards the right. The overall color palette is dominated by purple, blue, and red tones.

Site Investigation Data Capture

Survey123 Demo

Survey123 Hazmat Demo

← Hazmat Incident Report   



HAZARDOUS MATERIALS EMERGENCY
RESPONSE TEAM
SOMERSET COUNTY

Owner: J_durland
Created: 1/24/20 2:01 PM
Modified: 4/1/21 3:39 PM

 Collect >

 Sent 1 >



Survey123 CEHA Demo

CEHA Inspection and Investigation Survey

SC GIS Data



Created 1/7/2020 By LD and appended with 2018 and 2019 CEHA data

Owner: L_Dooley
Created: 1/7/20 10:36 AM
Modified: 1/5/21 1:42 PM

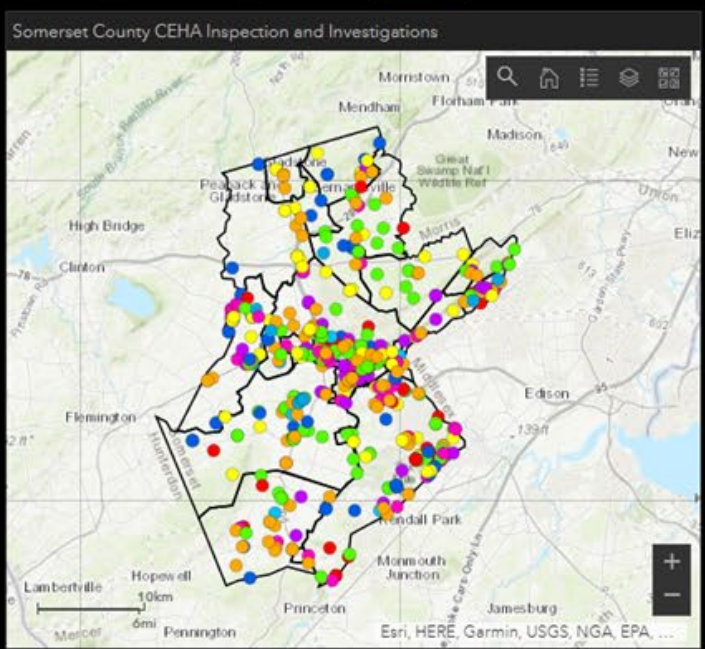
+ Collect >

▶ Sent 1 >



CEHA Dashboard

Inspection Date 7/1/2019 6/30/2020



Contact Information

- Lynette Dooley - Environmental Health Coordinator
dooley@co.somerset.nj.us
- Jon Durland - Emergency Response Coordinator
durland@co.somerset.nj.us
- Mike Stepowyj - GIS Coordinator
mstepowyj@co.somerset.nj.us



Thank you for listening in!

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