



# GIS Solution for Situational Awareness Man-made & Natural Disaster Events

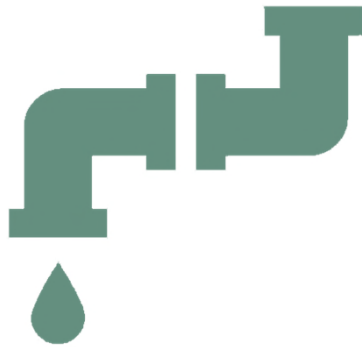
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CENTRAL VIRGINIA WASTE MANAGEMENT AUTHORITY  
JUNE 2023

# ESF 3- Public Works & Engineering

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Provide **SITUATIONAL AWARENESS** and **SUPPORT** for wastewater treatment plants and solid waste management facilities and assist in the restoration of public works systems.



**840+**

**WASTEWATER TREATMENT PLANTS**  
(WWTPs)



**315+**

**SOLID WASTE MANAGEMENT FACILITIES**  
(SWMFs)

# Current Challenges

WWTPs & SWMFs report operational issues through various & multiple communication pathways



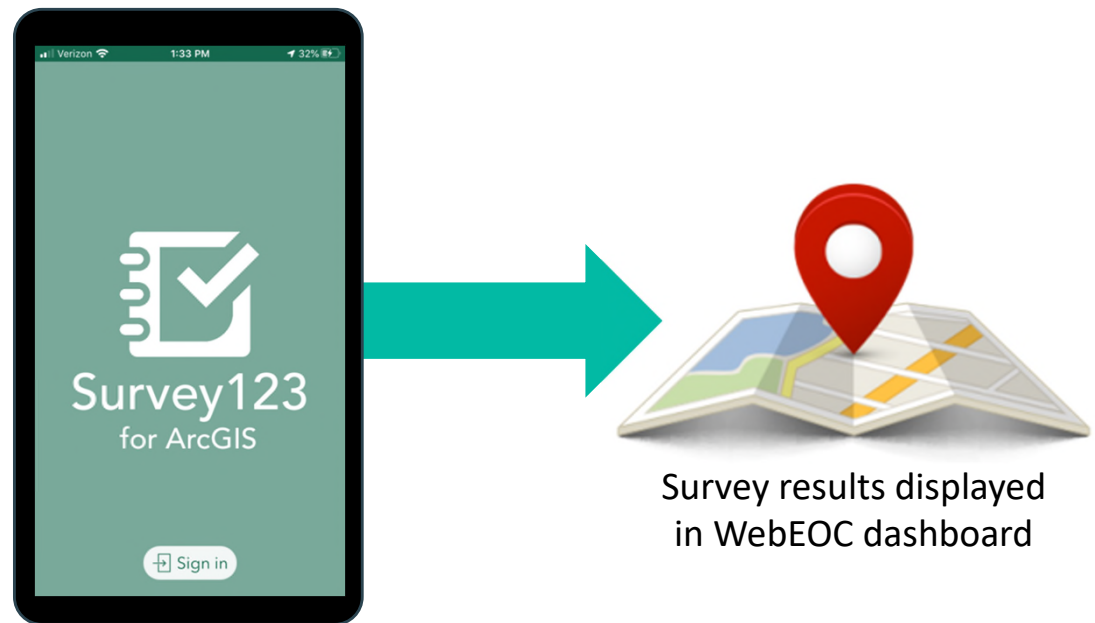
- Reporting is **not standardized**
- Information is **captured in different locations** (Local Situation Reports, Regional VDEM SitReps, ESF #3 Position Log or EEs, or Incident Action Plans)
- Information is **touched by many people**
- **Time intensive effort** to collect info about each facility
- **Need to deconflict** information from different sources

# Optimize Efforts

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## Survey 123 for ArcGIS

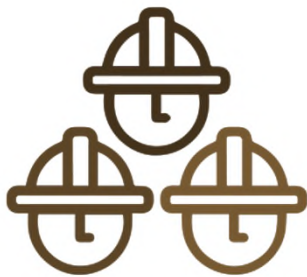
- Make reporting easy for facility
- Collect info in a timely manner
- Obtain overview of affected area
- Standardize info that is reported
- Direct report from facility minimizes need to deconflict info



# Type of Reporting

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The survey collects information about key operational elements that are critical to continuity of operations.



## STAFFING

Staffing resources and strategies



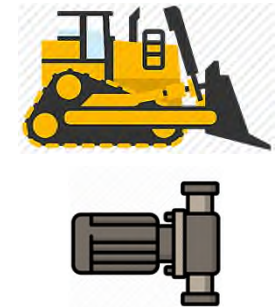
## HOURS OF OPERATION

Reduction or expansion of operating hours depending on type of incident



## FUEL

Fuel inventory for back up power supply (e.g., 1-2 days)



## BACK UP EQUIPMENT

Availability of back up equipment, e.g., rubber-tired vehicles or pumps

# Workflow

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Operator downloads app to phone or desktop and completes and submits initial survey.



Non-published survey URL is emailed to facility operators.

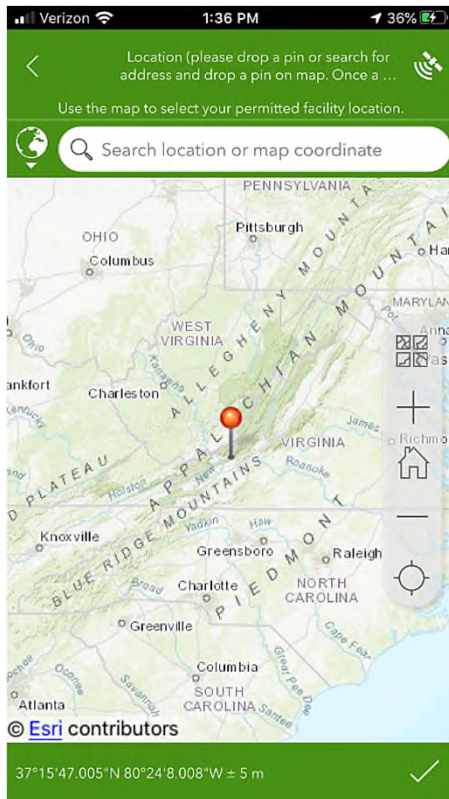


Operator edits initial survey to make subsequent updates during the disaster event.



Survey responses uploaded to VDEM ArcGIS Online account. Aggregated results are password protected and visible to VEST and ESF#3

# Survey



Status of leachate storage in tanks or surface impoundments? ✕

- Sufficient freeboard
- At or near design capacity
- Overflows and/or discharges occurring
- Not Applicable

Briefly describe disruptions to operations, unmet needs, or above and beyond preparations to mitigate impacts:

Split facility staff into two shifts to implement physical distancing. Closed convenience centers. Saturday hours reduced to 9 am - 12 pm and commercial trucks only. ✕

835

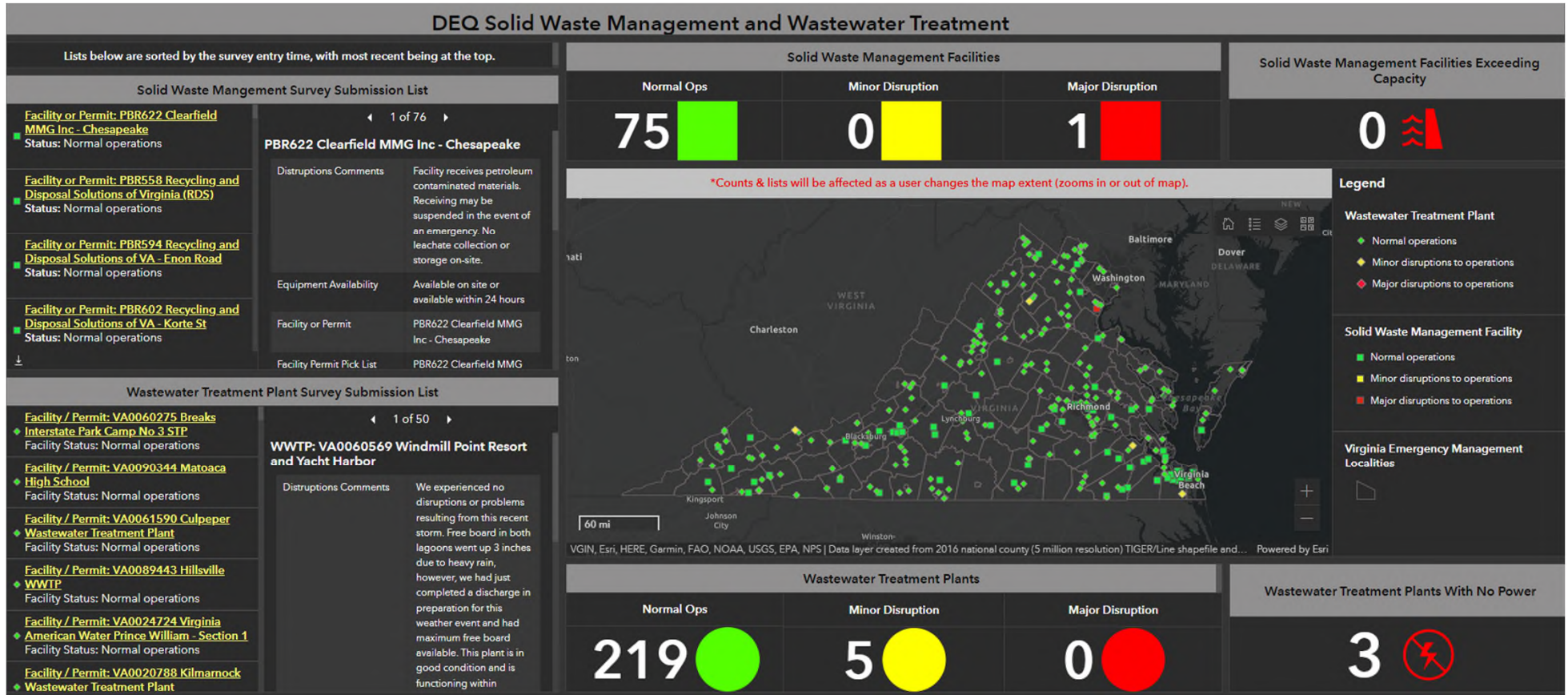
✓

I Thanks Hey

q w e r t y u i o p



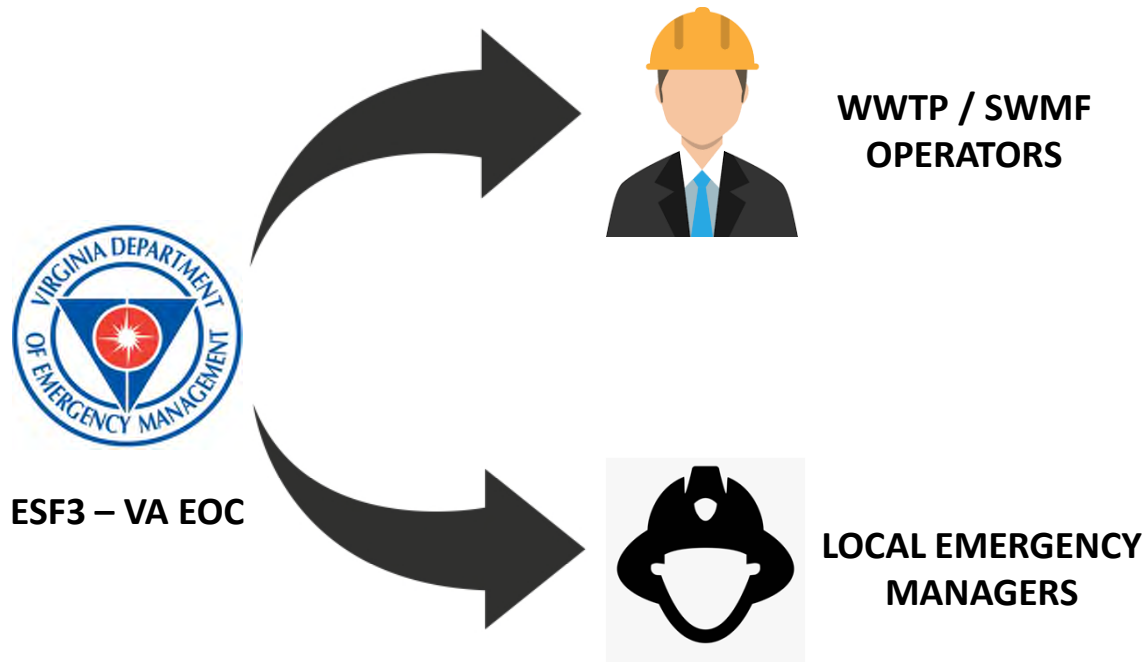
# Survey Dashboard





# Survey Launching

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DEQ's ESF3 VEST Team Members will email facilities and will be point of contact for questions and will provide support for troubleshooting application.

# Questions?

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