# EPA Response to Hurricane Harvey

SAM COLEMAN

REGION VI ACTING REGIONAL ADMINISTRATOR

7068913

# UNIFIED COMMAND

# RESPONSE OBJECTIVES

- Maximize the protection of public, health, and safety.
- Identify affected drinking water and wastewater systems in each area, evaluate the systems to determine their operational status and facilitate system contact with Federal, State, and Local agencies (provide technical assistance).
- Conduct wide area assessment to identify orphaned containers equal to or greater than 5 gallons, potential or actual discharges from vessels and/or facilities, and document the most effective means for recovery or mitigation in accordance with Natural Disaster Operations Workgroup and the approved Unified Command Vessel/Pollution Removal protocols.
- Prioritize, monitor, mitigate and/or recover identified pollution targets.
- Assess DHS critical infrastructure and RMP/FRP facilities for damage and immediate/ongoing releases.

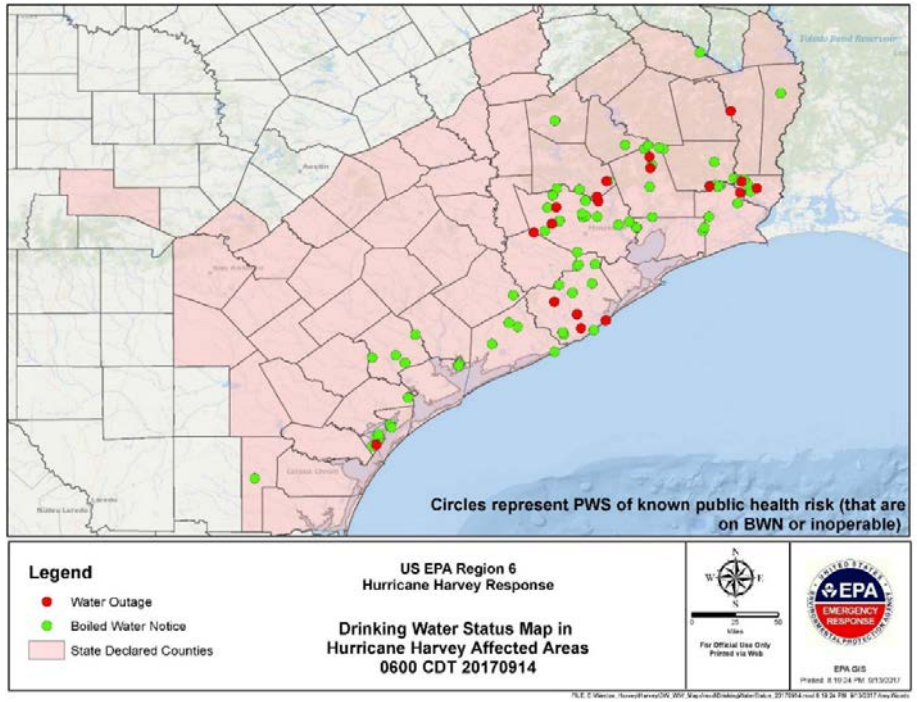
# RESPONSE OBJECTIVES

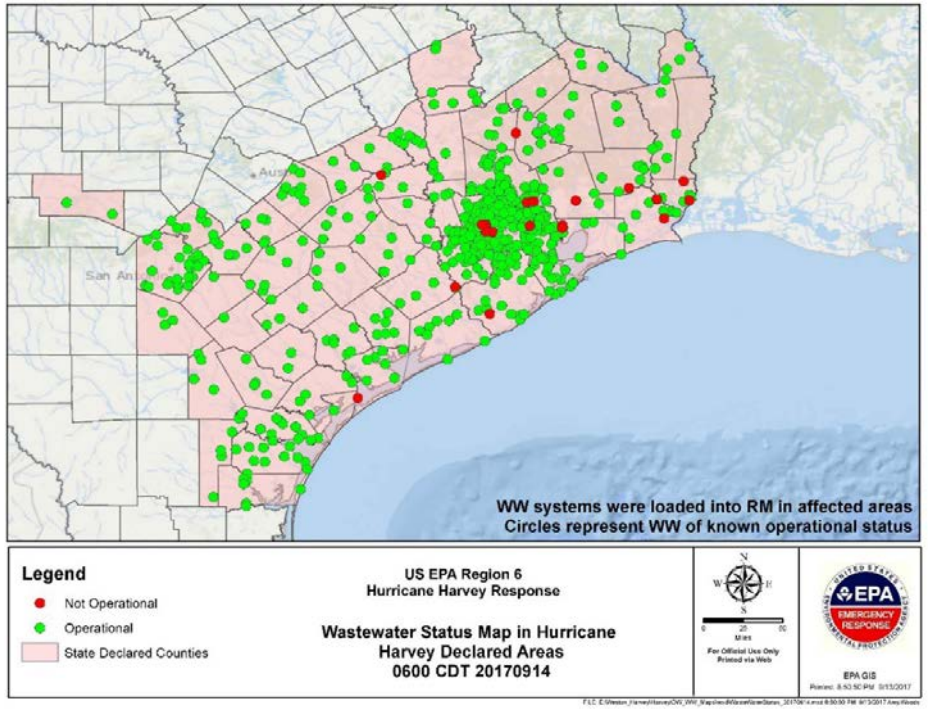
- Establish and maintain a common operating picture (COP).
- Identify and maximize protection of environmentally sensitive areas and threatened species.
- Manage a coordinated interagency response effort that reflects the composition of the Unified Command.
- Establish an IMT that can meet the initial and long-term challenges required for incident mitigation.
- Inform the public, stakeholders, and the media of response activities.
- Ensure appropriate financial accounting practices are adhered to.
- Establish a vessel recovery strategy.
- Establish a strong interagency partnership with public and private organizations to determine ownership and disposition of targets.

# Unified Command Mobile Command Post

# Command & General Staff Meeting

# DW/WW Systems in Partnership with TCEQ




| Drinking Water and Wastewater Assessments (September 14, 2017*) | |
|---|---|
| **Assessment Types** | Total Assessments |
| **On-Site DW Assessments** | 567 |
| **On-Site WW Assessments** | 385 |
| **Phone DW Assessments** | 6550 |
| **Phone WW Assessments** | 4606 |
| *** As of September 14, 2017, drinking water and wastewater assessment activities were transitioned to the Texas Commission on Environmental Quality for completion.** | |

# Accomplishments

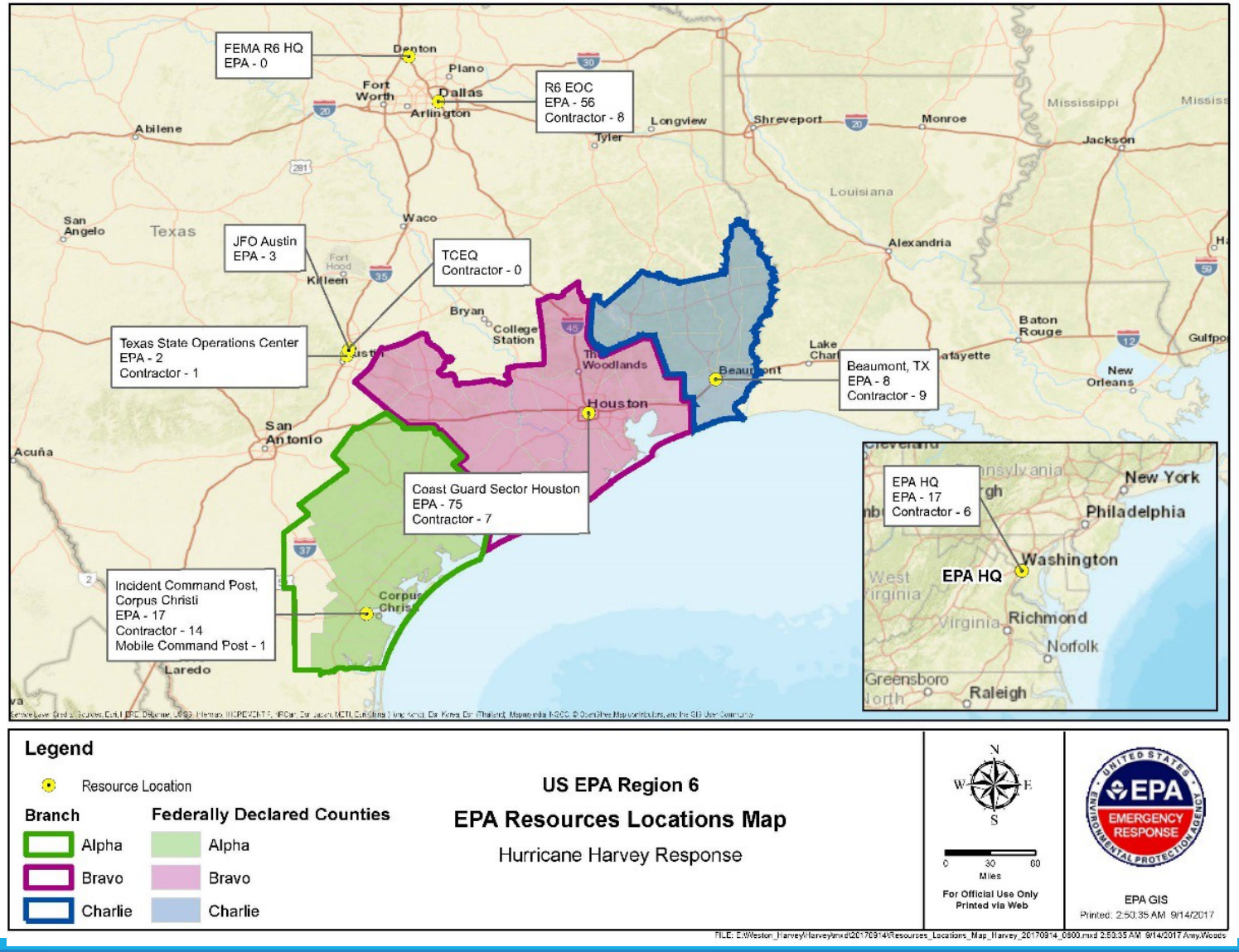
- 130 Hazard Evaluations completed and closed
- 267 spills/discharge investigation completed
- 990 orphan containers recovered
- 567 drinking water assessments completed
- 385 waste water assessments completed
- Daily aerial over-flights for air monitoring
- 7 fuel waivers signed, 7th waiver covers 38 states
- 4 No Action Assurance letters signed
- Ground support air monitoring
- 43 NPL site evaluations completed
- EPA fully integrated with TCEQ and TGLO in Unified Command

# Accomplishments

The EPA participated in over 260 joint site observations at staging areas and approved landfills.

EPA Community Liaisons provided federal and state guidance and best practices to thousands of individuals that are dealing with potential hazards in damaged or lost homes.

# EPA Resources



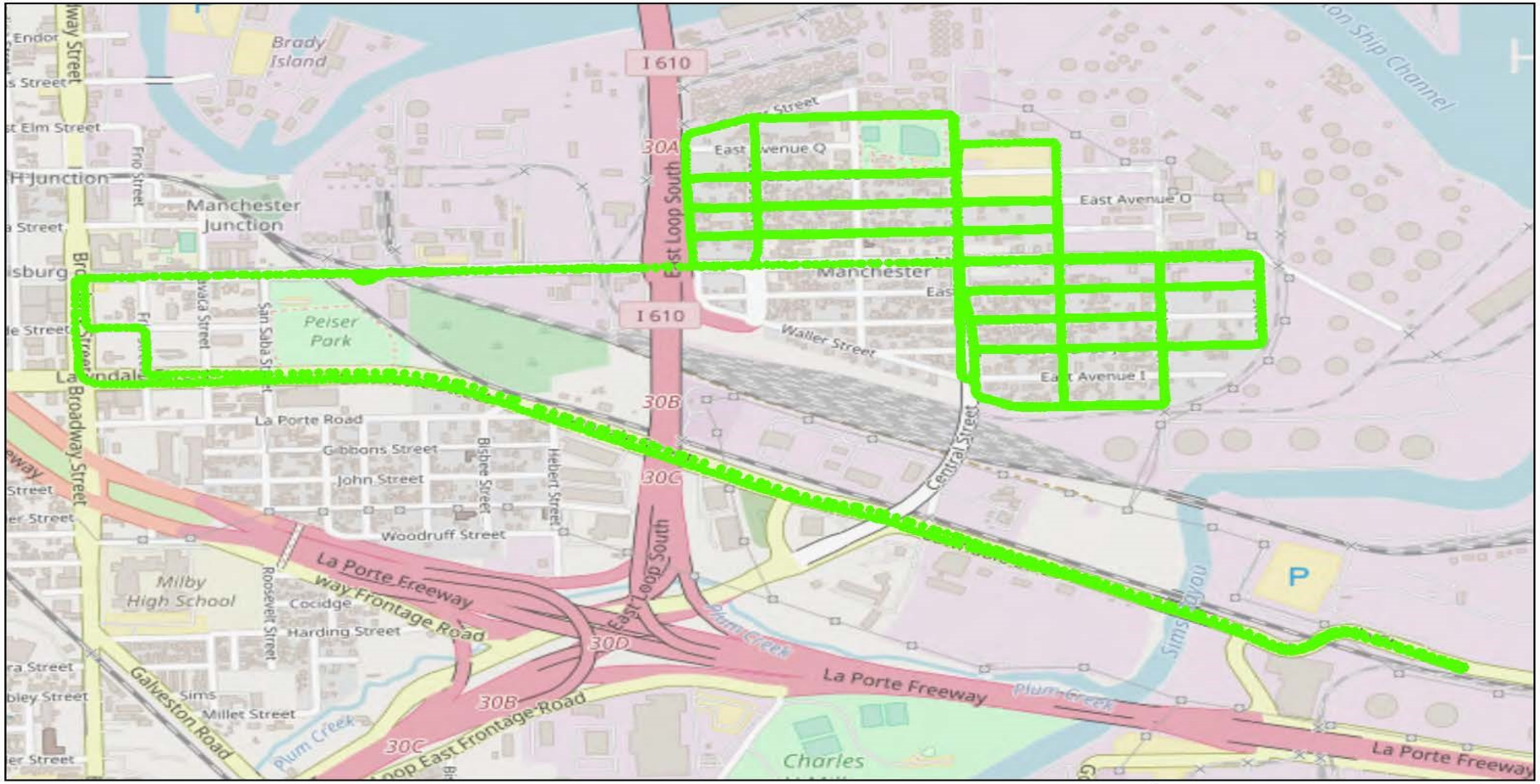
# FUNDING

| Funding Sources | Funding Ceiling |
|---|---|
| Non Mission Assignment | N/A |
| MA 4332DR-TX-EPA-01 | $275,000.00 |
| MA 4332DR-TX-EPA-04 | $3,301,270.60 |
| Totals: | $3,576,270.60 |

| Funding Sources | Funding Ceiling |
|---|---|
| MA 4332DR-TX-EPA-03 (Expired) | $12,192,000.00 |

# TAGA Activities

- Refinery monitoring
- Sensitive community monitoring
- Chemical manufacturing corridor monitoring




| Substance | CAS # | Short-term AMCV Health (ppb) |
|---|---|---|
| 1,1-dichloroethylene | 75-35-4 | 180 |
| benzene | 71-43-2 | 180 |
| m/p-xylene | 179601-23-1 | 1700 |
| o-xylene | 95-47-6 | 1700 |
| tetrachloroethylene | 127-18-4 | 1000 |
| toluene | 108-88-3 | 4000 |
| trichloroethylene | 79-01-6 | 100 |

**Legend**

● No Readings Above Benchmarks

**What's an AMCV?**
AMCV is a collective term used to describe chemical-specific air concentrations used to evaluate air monitoring data that are set to protect human health and welfare. Short-term AMCVs are based on data concerning acute health effects. **AMCVs** may contain health-based Reference Values (ReVs) and health- and welfare-based ESL values. AMCVs are screening levels used in TCEQ's evaluation of ambient air monitoring data to assess the potential for measured concentrations of specific chemicals to cause health or welfare effects. Health-based AMCVs are safe levels at which exposure is unlikely to result in adverse health effects. ESLs are screening levels used in the TCEQ's air permitting process to establish maximum emission rates that are written into enforceable air permits. Health-based **ESLs** are set 70 percent lower than the safe level, or AMCV. This additional buffer allows TCEQ to take into account exposure to chemicals from multiple sources in air permit reviews.

**USA EPA REGION 6**
**TAGA Runs on 20170905**

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Miles

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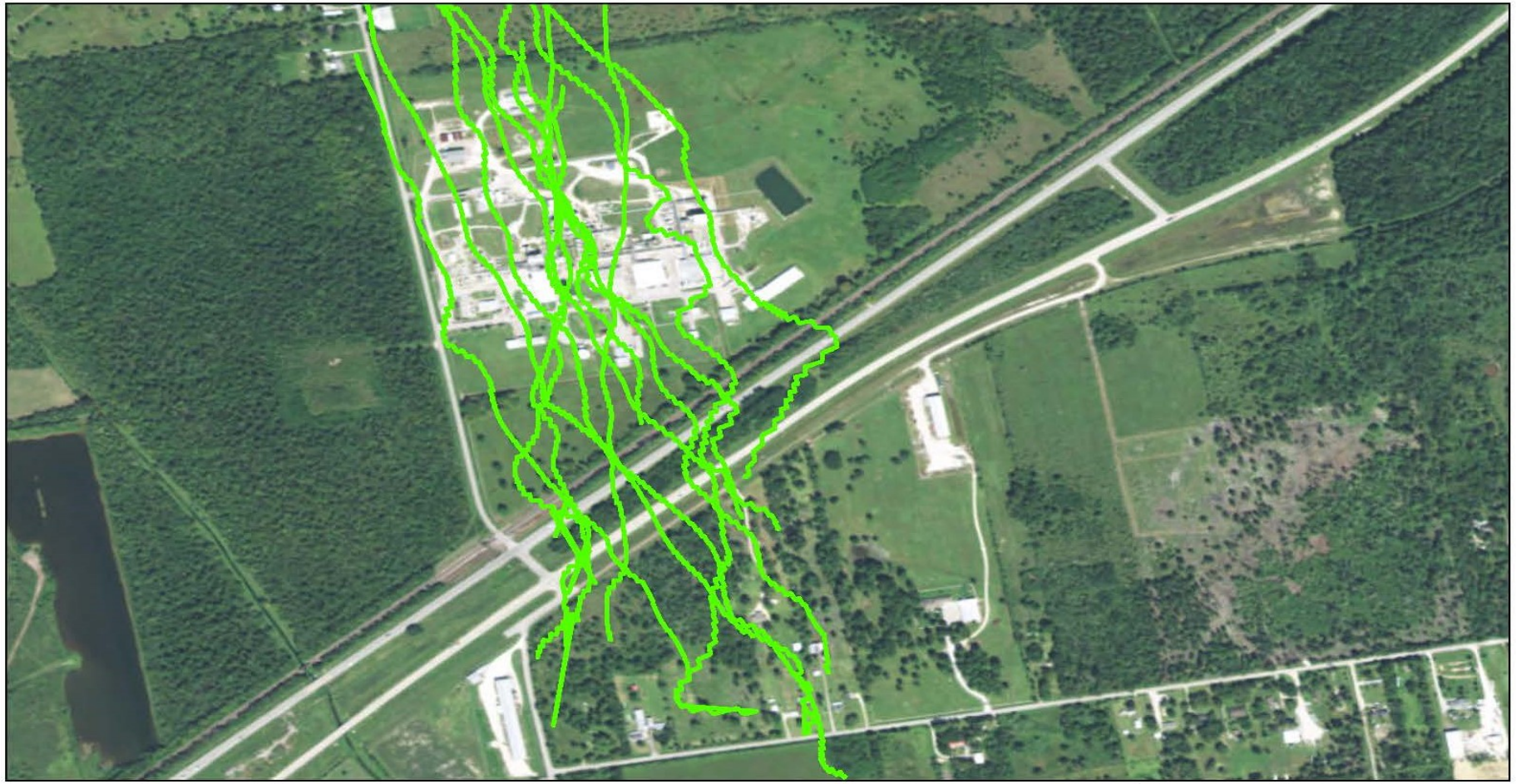
# TAGA Product

# ASPECT Activities

- DHS and DOE requested monitoring
- Pipelines
- Refineries
- Release assessment of chemical and oil storage facilities
- Release response support at the Arkema incident
- Aerial reconnaissance imagery to identify releases and orphan containers

# ASPECT Flights



| Chemical Compounds | Short-term AMCV (ppm) |
|---|---|
| 1,1-dichloroethane | 1.0 |
| 1-butene | 27 |
| acetone | 11 |
| dichlorodifluoromethane | 10 |
| ethyl acetate | 4 |
| ethylene | 500 |
| isobutane | 33 |
| methyl ethyl ketone | 20 |
| methylene chloride | 3.4 |
| n-butyl acetate | 7.4 |
| n-propyl acetate | 2 |
| propylene | Simple Asphyxiant |
| vinyl chloride | 27 |

**Legend**

No Readings Above Benchmarks

**USA EPA REGION 6**
**Flight 13 ASPECT**

**What's an AMCV?**
AMCV is a collective term used to describe chemical-specific air concentrations used to evaluate air monitoring data that are set to protect human health and welfare. Short-term AMCVs are based on data concerning acute health effects. **AMCVs** may contain health-based Reference Values (ReVs) and health- and welfare-based ESL values. AMCVs are screening levels used in TCEQ's evaluation of ambient air monitoring data to assess the potential for measured concentrations of specific chemicals to cause health or welfare effects. Health-based AMCVs are safe levels at which exposure is unlikely to result in adverse health effects. ESLs are screening levels used in the TCEQ's air permitting process to establish maximum emission rates that are written into enforceable air permits. Health-based **ESLs** are set 70 percent lower than the safe level, or AMCV. This additional buffer allows TCEQ to take into account exposure to chemicals from multiple sources in air permit reviews.

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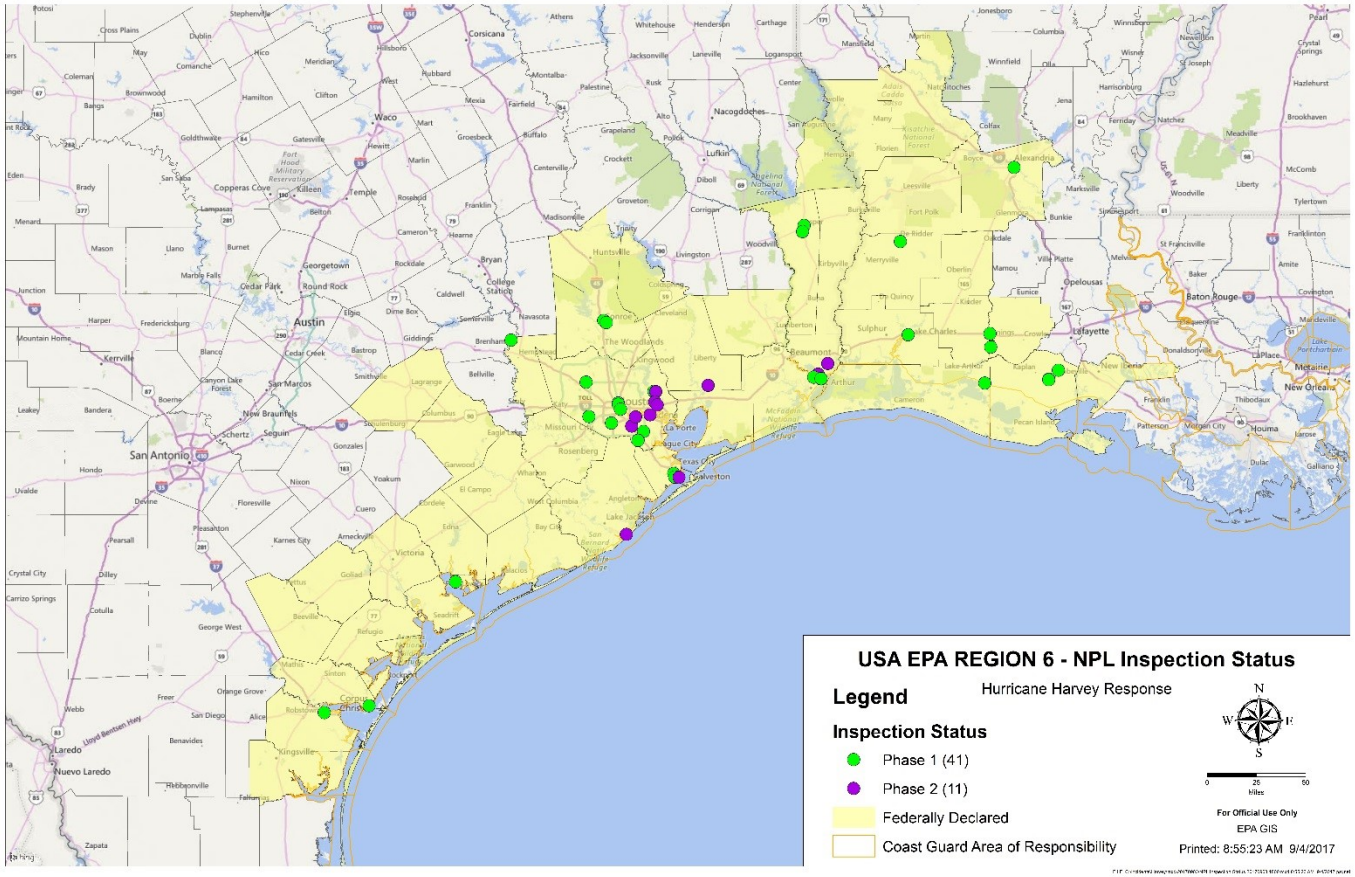
# PHILIS Activities

- On- Site Release assessment of analytical services
- Staging area sampling services
- Superfund site assessment analytical services

# NPL Site Inspections




All 43 Federal Superfund NPL Sites in the affected area have been assessed. Of these, 41 sites have been cleared, and two sites (San Jacinto Pits and US Oil Recovery) require additional follow-up.

On September 5, EPA initiated sampling at NPL sites in Texas. EPA will sample sites to confirm no releases. As of September 14, 2017, all Texas NPL sites in the affected area were sampled and information was posted on the EPA website.