Hurricane Harvey-Texas
ESF-10
Situation Report #4

Subject: **SITREP #4**
To: Agency Leads
Thru: Matthew Loesel. PSC
From: Unified Command
Date: 9/2/2017
Reporting Period: 9/2/2017

1. Introduction

1.1. Background

Hurricane Harvey made landfall at 2300 ET, August 26th, as a Category 4 storm near Rockport, Texas. Harvey stalled over southeastern TX. Due to its slow motion and a prolonged period of onshore flow, the impacted areas of Texas received more than 50 inches of precipitation and catastrophic flooding occurred.

An ESF-10 Mission Assignment was signed on August 28, 2017. The US Environmental Protection Agency (EPA), Texas Commission on the Environmental Quality (TCEQ), Texas General Land Office (TGLO) and the US Coast Guard (USCG) have entered into Unified Command to begin the evaluation, clean-up and recovery of spills, releases and orphan containers.

1.2. Incident Objectives (Updated on 9/1/2017)

- Provide for the safety, welfare and security of response personnel.
- 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 protocols.
- Prioritize, mitigate/recover product and monitor identified pollution targets.
- Assess DHS critical infrastructure and RMP/FRP facilities for damage and immediate/ongoing releases.
- Identify secure areas to process and temporarily store for subsequent recycling, disposal, or return to original owner displaced orphan containers, above ground storage tanks, hazardous waste, and vessels.
- Identify locations and establish ESF-10 ICP, Branches and Staging Areas commensurate to the size and scope of the incident.
- 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.

2. Current Activities

2.1. Operations Section

On Saturday, September 2, 2017, the agencies under Unified Command conducted operations using the Natural Disaster Operational Workgroup (NDOW) Standard Operating Procedures, NDOW forms and Response Manager in both the Alpha (Corpus Christi) and Bravo (Houston) Branch. The following teams were deployed.

Table 1: Types of Teams Deployed 9/2/17

Team Type	Alpha Branch	Bravo Branch
Water Assessment Teams	2	0
Hazard Evaluation	2	7
Oil Discharge Assessment	5	5
Container Recovery	2	0
ER/Strike Team	2	0

The Water Assessment teams visited seven facilities and made the following status determinations.

Table 2: Drinking Water and Waste Water Assessments Performed on during current operational period.

Status of Facility with On-Site Visit	# of Facilities Assessed on 9/2/17
Loss of Power Not on Generator	1
On Generator Power	2
Inoperable	2
Operating	0
Out of Contant (No Response)	0
Results of Testing Pending	2

The Hazard Evaluation, Oil Discharge Assessment, ER/Strike Team and Container Recovery Teams opened the following number of targets (orphan containers and spills/discharges from facilities or vessels.)

Table 3: Daily/Cumulative Summary of Hazard Evaluations/Recovery

Status	Opened		Closed	
	9/2/17	Cumulative	9/2/17	Cumulative
Alpha Branch	10	37	4	37
Bravo Branch	24	69	1	6
NRC Reports	0	3	0	0

Note: Open means the target is yet to be recovered. Closed means the target was recovered/left in place or access was denied to collect the item.

Table 4: Daily/Cumulative Summary of Spills/Discharges

Status	Opened		Closed	
	9/2/17	Cumulative	9/2/17	Cumulative
Alpha Branch	3	498	6	64
Bravo Branch	13	58	1	0
NRC Reports	2	41	0	6

Note: Open means the target is yet to be recovered. Closed means the target was recovered/left in place or access was denied to collect the item.

Bravo has an additional team which is monitoring the situation at the Arkema Chemical facility in Crosby, TX. After the 2nd explosion at the facility, ASPECT performed 5 overflights with only 2 detections of benzoyl peroxide at approximately 5 ppm which is just above the detection limit. All other readings have been non-detect. During the fire EPA's ground air monitoring results outside of the exclusion zone were below levels of health concern for VOCs, SO2 and CO. Unified Command determined that access to the facility is unsafe and a 1.5-mile evacuation radius would remain in effect until further notice.

In addition to the overflights of Arkema on September 1, 2017 ASPECT assessed Department of Homeland Security (DHS) critical infrastructure (e.g. public water supplies and wastewater treatment facilities), Risk Management Plan (RMP) and Facility Response Plan (FRP) facilities for damage and immediate ongoing releases due to Hurricane Harvey.

At approximately 1030, a Port Assessment Team received a report of a gas well leak at 9 Mile Point. Oil Discharge Assessment Team 2 responded, identified the well, and did not find it to be leaking.

Oil Discharge Assessment Team 1 observed an ongoing release of natural gas at the TR Offshore LLC's South Mustang Separation Facility. The team notified the responsible party and logged the incident using the NDOW form.

Several reports of wildlife mortality came in to Unified Command: one small whale near Port Arthur and three dead pelicans were found in Port Aransas. Wildlife mortality was

documented using Texas Parks and Wildlife's Department's Fish Kill and Injured/Oiled Wildlife Form.

Projected activities for Sunday, September 3, 2017 include all of the teams mentioned above. In addition, an Aerial Operations Team will be located in Bravo. The team will conduct Rapid Needs Assessment in Liberty and Chambers Counties. Discussions regarding Charlie Branch have started and when feasible, several EPA personnel and a Data Unit will be deployed.

The phone bank in Austin, consisting of EPA and TCEQ personnel continued contacting drinking water and waste water facilities by phone.

Table 5: Drinking Water Facilities Contacted and Current Status

Assessment Status	# of Contact on 9/2/17	Cumulative
Clear	44	111
Destroyed	0	3
Operating on Generator Power	9	46
Inoperable	9	149
Loss of Power - No Generator	38	253
Operating	420	1900
Out of Contact	64	179
Results of Testing Pending	38	64
Needs Site Visit	5	8
Unknown	39	250

Table 5: Waste Water Facilities Contacted and Current Status

Assessment Status	# of Contact on 9/2/17	Cumulative
Inoperable	3	64
Operating	149	1882
Operating on Generator Power	3	48
Partial Operations	21	64
Needs Site Visit	0	2
Out of Contact (No Response)	2	46
Unknown	142	268

2.2. Other Notable Activities

On September 2, 2017, the EPA Liaison Officer met with the Nueces County Emergency Management Coordinator and Deputy Coordinator at the Nueces County EOC. The Coordinator did not feel that there were any environmental concerns they would need assistance with, but appreciated EPA reaching out to them. Their contractor, will be starting "vegetation" debris pickup next week which should last about 4-6 days. The

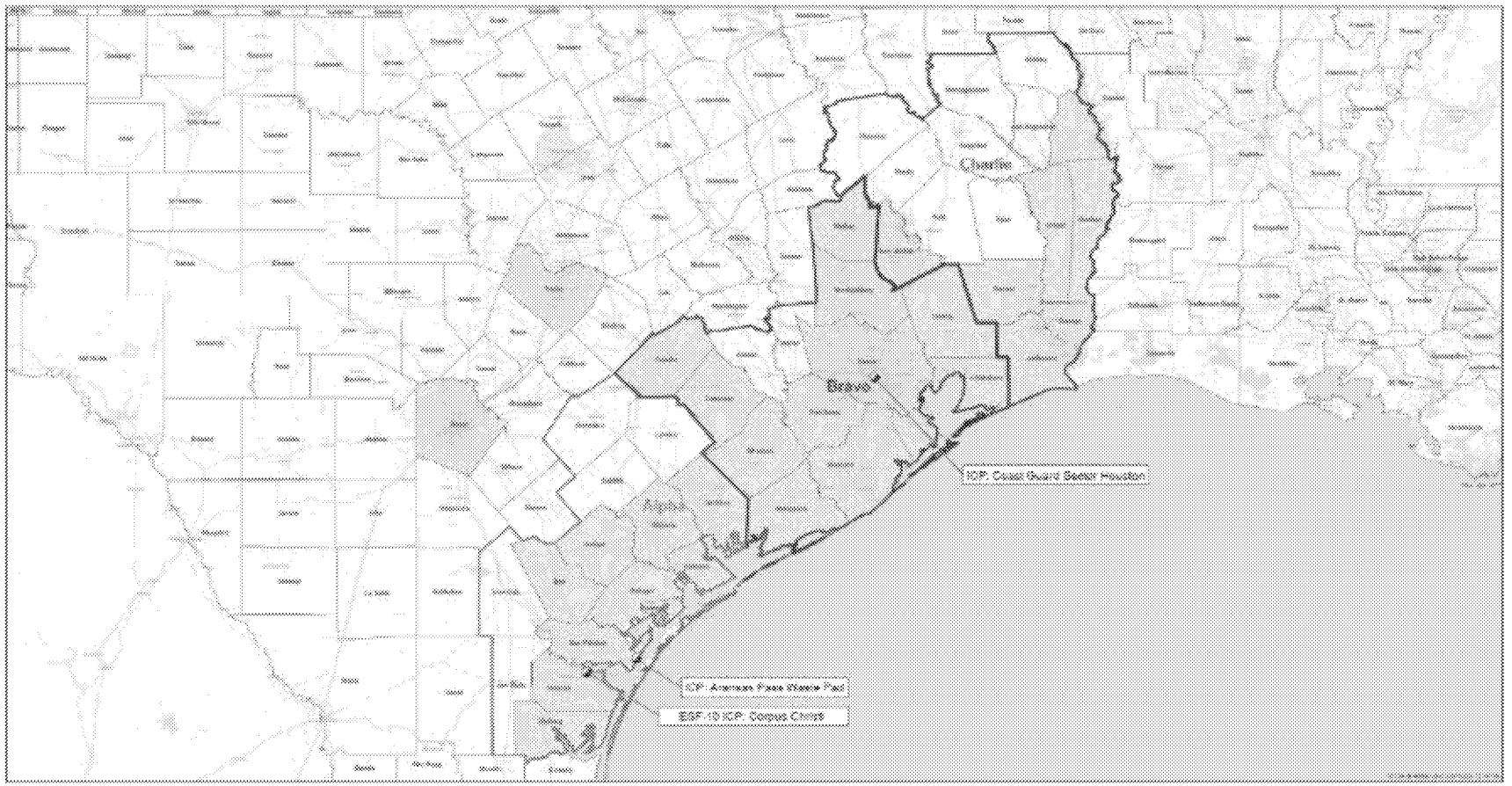
Coordinator did ask if EPA could echo any of their social media and media information about the debris pickup to assist in a widespread dissemination of their information.

3. **Participating Agencies**
   - **Texas Commission on Environmental Quality**
   - **Texas General Land Office**
   - **Texas Parks and Wildlife**
   - **6th Civil Support Team**
   - **US Environmental Protection Agency**
   - **US Coast Guard**
   - **National Oceanic and Atmospheric Agency**

4. **Personnel on Site**

Agency	Alpha Branch	Bravo Branch	Charlie Branch*	Austin
US EPA	13	13		10
USCG	19	29		
TCEQ	20	28		
TGLO	16			
CST	15			
Contractors	10	5		

***Charlie Branch in process of being staffed.**



Legend

- Incident Command Post (ICP)/Staging Area
- Alpha
- Bravo
- Charlie
- County Boundary
- Federally Declared Counties in Texas

USA EPA REGION 6
Overview Map
Alpha, Bravo, Charlie
Hurricane Harvey Response

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EPA GIS
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PHOTOS:

Photo One: Command and General Staff Meeting on Sep 2nd 2017

Photo Two: Alpha Branch Team Three Special Ops. USCG and EPA Members discussing operations.

Photo Three: OSC in Alpha Branch performing a field assessment
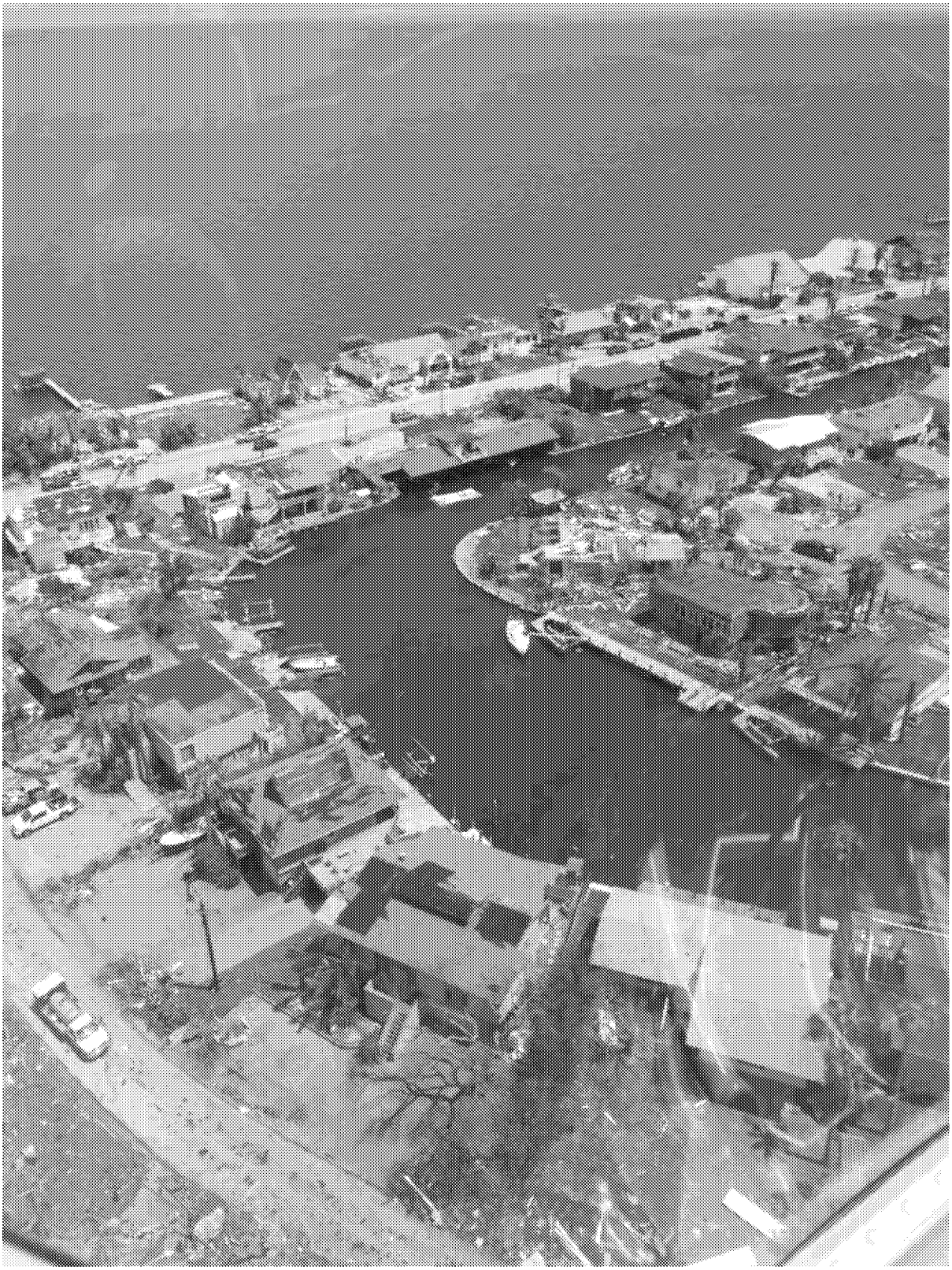
Photo Four is from the TCEQ/EPA/TGLO Recon flight over Rockport/Fulton on Sep 1st 2017