

US EPA ARCHIVE DOCUMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Kalamazoo River/Enbridge Spill - Removal POLREP-SITREP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region V



**Subject:** SITREP #26  
Kalamazoo River/Enbridge Spill  
Z5JS  
Marshall, MI  
Latitude: 42.2395273 Longitude: -84.9662018

**To:** Lt. Paul Baker, Kalamazoo County Sheriff's Office  
James Rutherford, Calhoun County Public Health Department  
Durk Dunham, Calhoun County Emergency Management  
F/LT Bonnie Kanicki-Wilson, Michigan State Police, Emergency Mgt.  
Greg Danneffel, MDNRE  
Mike McKenzie, City of Battle Creek  
Leon Zupan, Enbridge  
Susan Hedman, U.S. EPA Regional Administrator  
Rebecca Humphries, MDNRE  
Jim Sygo, MDNRE  
Connie Gibson, Calhoun County Sheriffs Office  
Cheryl Vosburg, City of Marshall  
David Chung, U.S. EPA  
Jason El-Zein, U.S. EPA  
Duty Officer, NRC  
Michael Chezik, U.S. Department of Interior  
Linda Nachowicz, U.S. EPA  
OSLTF USCG, USCG  
Jill Slaght, 7th District of Michigan  
Ken Brock, 7th District of Michigan  
Bruce Vanotteren, MDNRE  
Brian Pierzina, PHMSA Central Region  
Thomas Hemminger, USCG Grand Haven  
Ronna Beckmann, U.S. EPA  
CAPT Stephen Torpey, USCG  
Scott Corbin, Allegan County EMA Director

**From:** Ralph Dollhopf, U.S. EPA Incident Commander  
Stephen Wolfe, U.S. EPA On-Scene Coordinator  
Jeff Kimble, U.S. EPA Deputy Incident Commander  
Mark Durno, U.S. EPA Deputy Incident Commander

**Date:** 08/20/10

**Reporting Period:** 1900 hours 08/19/10 to 1900 hours 08/20/10

## 1. Introduction

### 1.1 Background

#### 1.1.1 Site History

##### Background Information

Site Number: Z5JS

D.O. Number:

Response Authority: OPA

Response Lead: PRP

NPL Status: Non NPL

Mobilization Date: 7/26/2010

Demob Date:

CERCLIS ID:

ERNS No.:

FPN#: E10527

Contract Number:

Action Memo Date:

Response Type: Emergency

Incident Category: Removal Assessment

Operable Unit:

Start Date: 7/26/2010

Completion Date:

RCRIS ID:

State Notification:

Reimbursable Account

#### 1.1.2 Incident Category

Emergency Response -- Pipeline Rupture

#### 1.1.3 Site Description

A 30-inch pipeline ruptured, releasing crude oil (NRC report of 19,500 barrels) into a culvert leading to Talmadge Creek. Talmadge Creek is a tributary to the Kalamazoo River. The response site is along Talmadge Creek and the Kalamazoo River running from Marshall, Michigan, to downstream of Battle Creek, Michigan. The Kalamazoo River is bordered by marshland and developed properties for the approximate 30-mile stretch of the response site.

#### 1.1.4 Preliminary Removal Assessment/Removal Site Inspection Results

Approximately 30 miles of the Kalamazoo River have been impacted. The Kalamazoo River experienced flooding before and after the spill. The river levels later fell and stranded oil in some backwaters, wetlands and floodplains. Talmadge Creek was boomed off at the confluence to the Kalamazoo River. Containment and absorbent boom were deployed along the Kalamazoo River and Talmadge Creek. Containment and absorbent boom also were deployed in Morrow Lake.

#### 1.1.5 Enforcement Activities, Identity of Potentially Responsible Parties

Enbridge is the RP.

On July 27, 2010, EPA issued an Administrative Order under section 311(c) of the Clean Water Act to Enbridge. Enbridge has submitted and EPA has approved the following deliverables required by the Order including but not limited to: *Operational Health and Safety Plan*; *Pipeline Repair Workplan*; *Sampling and Analysis Plan*; *Quality Assurance*

*Project Plan; Oil Containment and Recovery Plan; Source Area Remediation Plan; Remediation Plan for Downstream Impacted Areas; and Waste Treatment, Transportation, and Disposal Plan.*

## **1.2 Incident Objectives and Command Emphasis**

### **Incident Objectives**

- 1) Ensure health and safety of the public and response & recovery personnel.
- 2) Maintain the isolation of Talmadge Creek and Kalamazoo River from the source area.
- 3) Contain and recover oil and contaminated vegetation in Talmadge Creek and Kalamazoo River.
- 4) Maintain effective unified communications with cooperating & assisting agencies and the public.
- 5) Perform remediation & restoration of all affected public & private areas of river & river systems.
- 6) Provide protection of environmentally and culturally sensitive areas including wildlife and historic properties.
- 7) Protect threatened and endangered species & continue to recover & rehabilitate injured wildlife.
- 8) Maintain Joint Information Center function.
- 9) Continue to collect, coordinate, manage and communicate environmental and public health data.
- 10) Obtain input from multi-agency Science Team to help establish protocols to guide cleanup of environmentally impacted areas.

### **Command Emphasis**

- 1) Implement operations metrics display in all situations and operations updates to UC.
- 2) Enbridge to maintain primary responsibility for planning cycle and IAP development:
  - Monitor effectiveness of IAP briefing and use by Operations; and
  - Continue transition of IAP development from EPA to Enbridge.
- 3) Concentrate resources for river, shore, and floodplain cleanup and sheen management in Division C, with emphasis on increased overall work efficiencies..
- 4) SCAT update on entire river system..
- 5) Evaluate the adequacy of SCAT resources.
- 6) Review SCAT recommendations with Science Team, with emphasis on Division C, to coordinate near-term cleanup efforts.
- 7) Re-evaluate and enhance current, continuous, comprehensive subsurface monitoring in the Kalamazoo River and at Morrow Lake.



### 1.3 Strategic Considerations

- 1) Increase emphasis on improving overall work efficiencies.
- 2) Continue shift of monitoring resources (air, water, sediment) and analytical resources from EPA to Enbridge.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

The response site extends from the pipeline break to the dam at the end of Morrow Lake. Operationally, the response has been divided into two Oil Recovery and Cleanup Branches: East and West. These branches have been geographically divided into five Divisions, A through E, with Division A starting at the pipeline break and Division E ending at the western edge of Morrow Lake (see attached figure). The East Branch includes Divisions A and B and the West Branch includes Divisions C, D and E. Division C is currently an area of command emphasis and has been further subdivided into four groups performing similar response activities in order to accelerate cleanup progress in that Division. Certain control points are denoted by division letter then control point number (i.e., C3 refers to control point three within Division C). Additionally the entire length of the site is now divided into one-quarter mile sections.

The Unified Command organizational charts (ICS 207 forms) are presented in Figures 1-4. The ICS 207 Forms describe in detail the work breakdown structure for the response action.

The following activities occurred during the reporting period from 1900 hours on August 19 to 1900 hours on August 20, 2010:

#### Division A

Division A has extended into the upstream portion of Division B (to the upstream side of location B2) since the operations required there are more similar to those in Division A than Division B.

#### **Enbridge**

Enbridge reported that it conducted oil collection at the release site with vacuum tankers and removed contaminated soil to the containment site. Efforts were intensified on the area directly east and south of the former leak site. Oiled soils were removed to the disposal site. Silt fence installation is complete, and the water filtration system has been installed. Enbridge also continued scraping oiled vegetation and surficial soils in accordance with SCAT recommendations, along with chipping and clearing. (Scraping and SCAT references reflect activities up to Location B2 along Talmadge Creek.)

Samples were collected for analysis to determine disposal classification. Silt booming in Talmadge Creek was deemed ineffective.

## **EPA**

EPA observed Enbridge complete the sandblasting and coating of the pipe. Upon completion, the pipe was wrapped with protective fabric. The process to prepare for hydrostatic testing the pipe continues. Elsewhere in the Division, swamp mats were removed from low-lying areas. EPA also observed continued soil excavation, noting that the majority of excavation work, where accessible, is complete. Dewatering of the soil continues with filtration of the collected water/oil mixture.

## **Division B**

### **Enbridge**

Enbridge reported that it continued oil collection at boom containment sites and replaced contaminated boom as required. Enbridge continued to construct swamp mat roads along Talmadge Creek, West of I-69. Crews worked on scraping oiled bank vegetation and soil along Talmadge Creek. This material was placed at the soil containment site. The construction of Staging Area 4 is complete and the construction of containment cell 2 between 15 ½ Mile Road and the Kalamazoo River is nearly complete. Silt fence was added along Talmadge Creek. A work plan for culvert cleanout under portions of I-69 was submitted to MDOT for approval.

## **EPA**

EPA observed continued skimming operations. EPA observed that boom was replaced downstream of Location B2. Oil on booms with a noticeable odor was observed approximately 100 yards downstream of Location B4. Pooled oil was visible at Location B4.5. Skimmers were not observed to be operating in this area. EPA observed that sandbags had been placed at Location B5.

Placement of the swamp mats has progressed to Location B4.3. The placement of swamp mats was completed from Location B4.9 to Location B5. Excavation of the marsh area at the end of Location B3 is now complete. Excavated soils were transported to the soil staging area prior to off-site disposal.

## **Division C**

### **Enbridge**

Enbridge reported that it maintained boom and replaced absorbents, sweep and snare. Additionally, Enbridge reported that shoreline vegetation removal continued in Groups 1, 2, 3, and 4.

**EPA**

EPA observed Enbridge performing boom maintenance, vegetation removal, snare boom and pad replacement and shoreline washing. Heavy oil was observed in Location C0.4. During night operations Location C1 was not lighted so no observations could be documented. EPA observed crews removing non-oiled vegetation between MP 2.25 and MP 6 and stopped this operation. EPA noted that Enbridge was not on the water until after 10:00 am. Additionally, it appeared to the observers that no system for division of labor was being implemented along the river and this lead to deficiencies in progress. An oiled turtle was reported to the wildlife hotline.

EPA observed numerous practices which were slow and/or inefficient within Group 3 – MP10-12. EPA observed pooled oil on banks and vegetation. EPA observed that crews in Location C0 were not following the HASP in that supervisors and crews were not donning specified PPE to indicate chain-of-command. Additionally, 80% of Hepaco workers were not wearing PPE and machetes were found on the river bank from the previous day's operations. The Safety Officer was notified.

The EPA Technical Services Group assessed booming strategies and the need for additional boom and replacement boom.

**Division D****Enbridge**

Enbridge reported that boom maintenance and skimming operations continued.

**EPA**

EPA observed boom maintenance activities and the collection of oiled debris and vegetation. EPA observed sheen at Location E0.5 that required containment measures.

**Division E****Enbridge**

Enbridge reported that it continues to maintain boom absorbent pads and sweep boom, as necessary.

**EPA**

EPA observed the MDNRE-led fish study at Location E0.5. Enbridge replaced an air bubbler at Location E3. The GLNPO R/V Mudpuppy crew collected 2 sediment and 5 surface water samples from Morrow Lake.



## **Branch Operations**

EPA, USCG and Enbridge Operations have four Branches that conduct activities in all Divisions: Environmental Compliance and Oversight; Monitoring; Wildlife Environmental/Damage Assessment; and Air Ops. In addition, the Unified Command stood-up a DECON Branch.

### **Environmental Compliance and Oversight Branch**

Enbridge reported that it provided oversight for cleanup activities at the source area, Talmadge Creek, as well as the river shoreline and floodplain.

EPA met with Enbridge operations to discuss and resolve Sampling Plan concerns for waste streams. EPA observed sampling of contaminated soil and debris.

### **DECON Branch**

The DECON Branch has been assigned the task of providing comprehensive evaluation of all existing decontamination activities.

## **Enbridge**

Enbridge submitted a decontamination plan for approval and is identifying additional decontamination sites for booms and boats.

## **EPA**

EPA performed oversight of Enbridge decontamination activities.

### **Monitoring Branch**

## **Enbridge**

Enbridge reported that they collected 30 surface water samples, 15 potable water samples, and 1 sediment sample.

Enbridge reported that its air sampling program continued to focus around Baker Estates mobile home park, the Ceresco Dam, and the leak site.

## **EPA**

EPA conducted air monitoring in all divisions. Tedlar bag air samples were collected in the Division B exposure units and four of the five focus areas (Daycare Center, Baker Estates, Squaw Creek and Ceresco Dam). EPA observed the Enbridge air monitoring

crew in Divisions B and C. Summa canisters collected in the grid areas showed results below action levels.

EPA collected water and sediment samples from two sites on Morrow Lake. EPA observed Enbridge surface water sampling teams and collected three split surface water samples from the river.

SCAT created a new cleanup recommendation chart and traveled to Division E to conduct evaluations of clean zones. SCAT also checked various work locations to assess whether or not proper SCAT cleanup techniques are being followed. Environment Canada provided recommendations on SCAT procedures. The Environment Canada staff demobilized from the site upon completion of their evaluation and meeting with SCAT.

#### Wildlife Damage Assessment Branch

USFWS worked with the Wildlife Branch to address oil-impacted wildlife. The wildlife center continued to receive oiled animals collected along the Kalamazoo River. There are 211 animals in live care, the majority of which are Canada Geese and turtles. A total of 192 animals have been rehabilitated and released.

#### Air Ops Branch

#### **Enbridge**

Enbridge flew nine over-flights yesterday and reported observing broken sheen in a boomed area above Morrow Lake and no visible sheen on Morrow Lake.

#### **EPA**

EPA conducted two over-flights of the river. Observations made during over-flights are reported at the daily situational briefings.

### **2.1.2 Progress Metrics**

All progress metrics in Section 2.1.2 are as reported by Enbridge unless otherwise indicated.

#### **Boom Report**

Number of Locations	41
Boom Deployed (feet)	176,124

Note: Since the transition of EPA's contractor's to Enbridge at 1900 hrs on 08/12/10, all boom is now controlled by Enbridge.

### Waste Tracking

Waste Stream	Quantity Shipped 8/19/2010	Cumulative Quantity Shipped*	Quantity On-Site Awaiting Disposal*
Soil <sup>1</sup>	813 yd <sup>3</sup>	10,549 yd <sup>3</sup>	14,858 yd <sup>3</sup>
Debris <sup>2</sup>	850 yd <sup>3</sup>	6800 yd <sup>3</sup>	NA
Untreated Water <sup>3</sup>	86,504 gallons		
Pre-treated Water <sup>4</sup>	171,000 gallons		

\* Information for water (other than daily quantity shipped) is reported in other tables below. Quantity awaiting disposal is estimated.

NA – Not provided by Enbridge

1. Benzene-impacted soil is being sent to Envirosafe.

2. Roll-off boxes containing waste sorbents, boom, pads, plastic, PPE, and oiled vegetation and biomass are being sent to Michigan Disposal.

3. Untreated water (hazardous waste) is being sent to Dynecol.

4. Pre-treated water is being sent to the Battle Creek POTW.

### Oily Water Recovery Tracking

Note: Some of the values in the tables below have been audited and reconciled by Enbridge and may not correlate with previously reported values.

Oily Water Collected by Location	
Location	Cumulative Total Collected (gallons)
Division A	3,916,921
Division B	2,525,525
Division C	731,400
Division D	117,825
Division E	42,250
Undetermined	109,200
<b>TOTAL</b>	<b>7,443,121</b>

<b>Oily Water Shipped Off-Site</b>		
<b>Oily Water Leaving Site</b>	<b>Destination</b>	<b>Cumulative Quantity Shipped (gallons)</b>
Untreated Water (Haz Waste)	Dynecol, Detroit MI	1,266,651
Pre-treated Water	Battle Creek POTW	1,892,700
Oily Water	RP facility, Griffith IN	2,060,000
<b>TOTAL</b>		<b>5,219,351</b>

<b>Oily Water Volume Summary (gallons)</b>	
Oily Water Collected	7,443,121
Oily Water Shipped Off-site	5,219,351
<b>OILY WATER REMAINING ON-SITE</b>	<b>2,223,770</b>

<b>Oil-Water Separation at Griffith IN Facility (gallons)</b>	
Oil	622,000
Water	1,438,000
<b>TOTAL</b>	<b>2,060,000</b>

## 2.2 Planning Section

The ENVL discussed sampling and monitoring results at the Command and General Staff meeting. The Health Team reviewed air data and groundwater sampling results as well as reviewing public health updates. The ENVL and countermeasures expert reviewed oil-treatment agent options and provided a brief at the Planning Section meeting. The ENVL worked with GIS and data analysts to evaluate and map surface water, sediment and air trends over the event period. Continued development of comprehensive environmental database. The ENVL received information from fish and wildlife on estimated delivery of fish-related data.

### 2.2.1 Anticipated Activities for Next Reporting Period

In the next operational period, Operations anticipates performing the same or similar activities as in the previous operational period, with a focus on activities in Division C.

#### 2.2.2 Issues

The Public Health Unit reported one spill-related call to the Poison Control Center (PCC). The number of total calls and provider reports to date is 116. The community comparison population survey took place. It included 183 home visits; 52 completed the survey, 18 refused, and the remainder were not at home.

## 2.3 Logistics Section

EPA Logistics continued planning the ICP relocation with the Enbridge Move Team and visited the new ICP location at 1601 Pratt Avenue, Marshall, Michigan to monitor progress. Eleven of the twelve trailers have arrived at the new location. Electrical and information technology wiring are being installed. Installation of a boardwalk between trailers was initiated.

## 2.4 Finance Section

The current NPFC issued ceiling is \$13 million. Approximately 84.1% of the ceiling has been spent through August 19, 2010, with a burn rate of \$354,805 per day. These cost summaries reflect only EPA-funded expenditures for the incident.

FSC SITREP 8-20-2010

FPN E10527 - Enbridge Pipeline Oil Spill

As of: 8/19/2010

ERRS Contractors		Est. Expended	Est Burn Rate (Lastest Daily)
EQM (EPS50802)	T057	\$1,285,393	\$1,500
	T060	129,500	18,500
LATA (EPS50804)		1,451,396	0
ER LLC (EPS50905)		723,669	0
ERRS Contractors		\$3,589,958	\$20,000
<u>START Contractor</u>			
WESTON (EPS50604)		2,806,876	147,166
Response Contractor Sub-Totals		\$6,396,834	\$167,166
<u>EPA Funded Costs:</u>			
Total EPA Costs		1,964,953	103,374
Pollution Removal Funding			
<u>Agreements:</u>			
Total Other Agencies		\$1,212,712	\$40,284
Sub-Totals		\$9,574,499	\$310,823
Indirect Cost (14.15%)		1,354,792	43,981
Total Est. Oil Spill Cost		\$10,929,291	\$354,805

## 2.5 Safety Officer

Three minor first aid injuries, one medical aid injury and one illness were reported. Additionally one minor motor vehicle incident with no injuries was reported during the day.

## 2.6 Liaison Officer

The LNO escorted governor Granholm's staff on an overview flight of the Kalamazoo River. She hosted a meeting with Participating and Cooperating Agencies.

## 2.7 Information Officer

PIO/Community Involvement staff coordinated media access and volunteer greeters for the Kalamazoo Public Meeting. Attendance was approximately 125. Presentations by the Region 5 Regional Administrator, Deputy Incident Commander, Director of the Michigan Department of Natural Resources and other agencies were well received. Overall press coverage was favorable.

As a result of the August 19th phone-only conference call, a follow-up question from the Michigan Messenger was received seeking comments from the Deputy IC on possible metals in the spill oil. The Deputy IC responded to the inquiry and is researching the response.

Two calls concerning Enbridge work plans were received after 4:00 p.m. One was forwarded to Enbridge and the other to EPA for response.

JIC staff operated the media inquiry line and performed media monitoring.

### **Media Inquiry Line (888-363-8632)**

Calls received during reporting period: 1

Enbridge reported the following call volume and community center visits:

### **Oil Spill Public Information Hotline (800-306-6837)**

Calls received during reporting period: 123

### **Community Center Visits: 71**

Visits by location during reporting period:

Battle Creek 54

Marshall 17

Enbridge reported that it received seven inquiries from its [www.response.enbridgeUS.com](http://www.response.enbridgeUS.com) website.



## 2.8 Response Actions to Date

Recovery of oil and contaminated soil and debris continues. Containment boom, sorbent boom, skimming equipment, vacuum trucks and other equipment has been used to support oil collection and removal along Talmadge Creek and the Kalamazoo River. Contaminated soils are being excavated from Divisions A and B. Replacement of the damaged pipeline and stabilization of the excavation are progressing. Contaminated shoreline vegetation along the creek and river is being cleaned or removed to control sheen. Recovered materials are being handled on-site and prepared for off-site transport. Tanker trucks are transporting the recovered oil to a facility owned by the RP with available storage in Griffith, Indiana. Oil-contaminated soils and other materials are being transported off-site for disposal.

EPA, ERT, START and RP contractors, with the support of the ERT Mobile Lab and Michigan National Guard Civil Support Team, have monitored and sampled air quality along the river and throughout multiple residential areas. A heavy emphasis was placed on specific monitoring for benzene as it is a recognized contaminant of concern for this response.

Water samples were collected for analysis from surface water, river and lake water columns, as well as private drinking wells along the length of the impacted areas of the Kalamazoo River. Water samples were also collected downstream of the Morrow Lake Dam. Validated analytical sampling results are now being posted to the public incident website (<http://www.epa.gov/enbridgespill/data/datawater.html>).

Enbridge removed the affected area of pipe, followed the cut out/repair plan, and completed a pipe investigation (50 feet upstream and downstream of the cut points) on August 7, 2010. The affected length of pipe has been repaired but is not yet operational.

A voluntary evacuation was issued by CCPH, in consultation with MDCH and ATSDR, for several residences located immediately downstream of the spill site along Talmadge Creek, up to its confluence with the Kalamazoo River. This voluntary evacuation was based on review of air monitoring results for benzene around oil collection areas. On August 16, 2010, CCPH lifted the recommended evacuation for the northwest portion of the voluntary evacuation zone after air monitoring and sampling results showed benzene levels below established action levels. On August 18, 2010, air sampling results for the remaining evacuation zone areas confirmed that benzene levels were below action levels allowing for re-occupancy. The Calhoun County Health Department worked on notifying residents.

Contingency Plans have been developed for several areas downstream of Morrow Lake, including Lake Michigan, in the case oil moves past the Morrow Lake Dam.

On August 17, 2010, EPA approved the following revised plans submitted by Enbridge: *Remediation Plan for Downstream Impacted Areas*, *Source Area Remediation Plan*, *Quality Assurance Project Plan* and *Sampling and Analysis Plan*. All plans submitted by

Enbridge as required by the July 27, 2010, Administrative Order have now been approved.

### **3. Participating Entities**

#### **3.1 Unified Command**

U.S. EPA

MDNRE

Michigan State Police Emergency  
Management Division

City of Battle Creek

Calhoun County Public Health  
Department

Calhoun County Emergency  
Management

Kalamazoo County Sheriff

Enbridge (Responsible Party)

#### **Cooperating and Assisting Agencies**

##### **Cooperating Agencies**

51<sup>st</sup> Civil Support Team Michigan  
National Guard

ATSDR

Allegan County Emergency  
Management

American Red Cross

Calhoun Conservation District

Calhoun County Commission

City of Kalamazoo

City of Marshall

Emmett Township

Federal Energy Regulatory Commission

Fredonia Township

Kalamazoo County Office of Emergency  
Management

Kalamazoo River Watershed Council

Marshall Area Firefighters Ambulance  
Authority

Marshall Police Department

Marshall Township Government and  
Fire Department

Michigan Department of Agriculture

MDCH

MIOSHA

National Transportation Safety Board

Natural Resource Group

NOAA

Oakland County HAZMAT

OSHA

PHMSA

USCG

U.S. Department of the Interior/USGS

USFWS

### 3.3 Congressional Presence

State Representative Jase Bolger  
State Representative Kate Segal  
State Representative Ken Kurtz  
State Representative Phil Browne  
State Representative Phyllis Browne  
State Representative Bob Geuck  
State Representative Tanya Schuitmaker  
State Senator Mike Nofs  
U.S. Congressman Mark Schauer  
U.S. Senator Carl Levin  
U.S. Senator Debbie Stabenow

#### 4. Personnel On Site

Agency/Entity	Numbers reported
EPA	64
START	90
Calhoun Cnty Public Health Dept. (CCPH)	3
Calhoun County (CC) Sheriff	11
City of Battle Creek	2
Kalamazoo Sheriff	2
MDA	0
MDCH	3
MDNRE	27
Michigan State Police (MSP)	10
NOAA - National Weather Service	2
NOAA - NRDA	0
USCG	13
USDA	2
USFWS	10
USFWS Contractors	2
Enbridge	17
Enbridge Contractors	1291
Total	1551

#### 5. Definition of Terms

ATSDR	Agency for Toxic Substances and Disease Registry
CCPH	Calhoun County Public Health
CIC	Community Involvement Coordinator
DMU	Data Management Unit
EMT	Emergency Medical Technician
ENVL	Environmental Unit Leader
EPA	Environmental Protection Agency
ERRS	Emergency and Rapid Response Services
ERT	Emergency Response Team
EU	Environmental Unit

GLNPO	Great Lakes National Program Office
H <sub>2</sub> S	Hydrogen Sulfide
HASP	Health and Safety Plan
IAP	Incident Action Plan
IC	Incident Commander
ICP	Incident Command Post
IN	Indiana
JIC	Joint Information Center
LEL	Lower Explosive Limit
LNO	Liaison Officer
LSC	Logistics Section Chief
MDA	Michigan Department of Agriculture
MDCH	Michigan Department of Community Health
MDMB	Michigan Department of Management and Budget
MDNRE	Michigan Department of Natural Resources and Environment
MI	Michigan
MIOSHA	Michigan Occupational Safety and Health Administration
MP	Mile Post
NRC	National Response Center
NOAA	National Oceanic and Atmospheric Administration
NPFC	National Pollution Fund Center
OSHA	Occupational Safety and Health Administration
PHMSA	Pipeline and Hazardous Materials Administration
PIO	Public Information Officer
PPE	Personal Protective Equipment
ppm	Parts Per Million
POTW	Publicly Owned Treatment Works
QA/QC	Quality Assurance/Quality Control
RP	Responsible Party
SCAT	Shoreline Contamination Assessment Team
START	Superfund Technical Assessment and Response Team
T&D	Transfer and Disposal
UC	Unified Command
USDA	United States Department of Agriculture
USCG	United States Coast Guard
USDOT	United States Department of Transportation
U.S. EPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
yd <sup>3</sup>	Cubic Yards
VOCs	Volatile Organic Compounds

## 6.0 Source of Additional Information

### 6.1 Additional Information

For additional information please refer to <http://www.epa.gov/enbridgespill.html>. For sampling analysis data, please see <http://www.epa.gov/enbridgespill/data/datawater.html>.

## **6.2 Reporting Schedule**

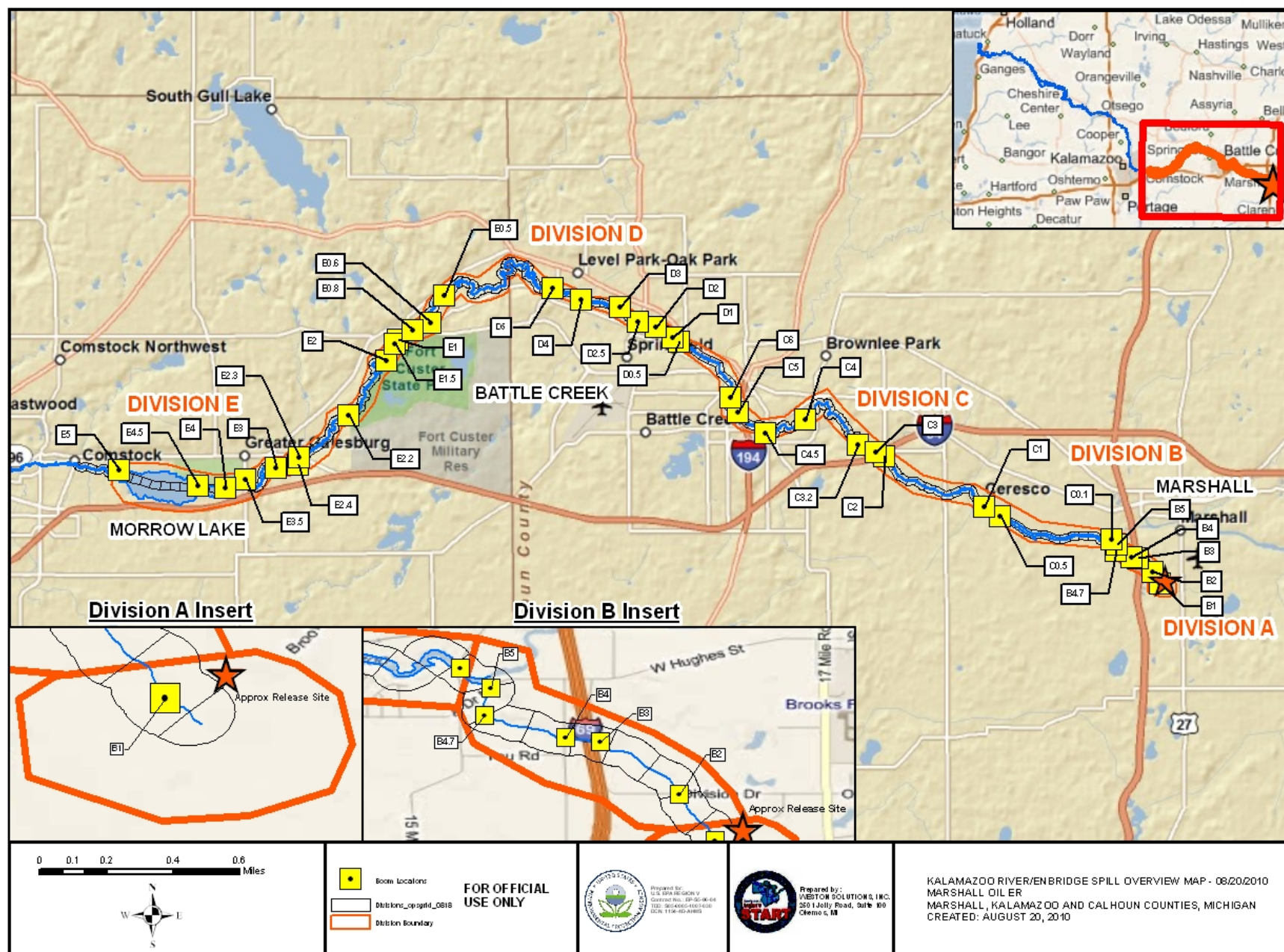
SITREPs have been created daily and will continue until the UC establishes a different reporting schedule.

## **7.0 Situational Reference Materials**

See attached Map, entitled “Kalamazoo River/Enbridge Spill Overview Map,” for more information.

See attached Unified Command Organizational Charts (ICS 207) entitled, “ Enbridge Pipelines Response Unified Command”, “Planning Section”, “Operations”, and “Division C.”







## Enbridge Pipelines Response Unified Command

### INCIDENT COMMANDERS

Ralph Dollhopf (EPA) / Greg Dunneff (MDNRE) / Matt Saxton (CCEM) / James Rutherford (CCPHD)  
F/Lt. Bonnie Kanicki-Wilson (Michigan State Police) / Sheriff Lt. Paul Baker (Kalamazoo Cty Sheriff's Office) / Mike McKenzie (City of Battle Creek) / Leon Zupan (Enbridge)  
DEPUTY ICs: Mark Durno (EPA) / Jeff Kimble (EPA) / Byron Neiles (Enbridge)

### LIAISON OFFICER

Claudia Schrull (Enbridge)  
Connie Puchalski (EPA)

### SAFETY OFFICER

Mike Koby (Enbridge)  
John Glover (EPA)  
Fred Whitted (Enbridge)  
Kim Lambricht (USCG)

### IC ADVISOR

Steve Kegelman (Enbridge)

### INFORMATION OFFICER

Terri Larson (Enbridge) Kelsey Myhre (Enbridge) Mick Hans (EPA) David Polish (EPA) Ginny Narsete (EPA), Megan McSeveney (EPA) Karen Thompson (APIO)

### OPERATIONS SECTION

Mike Moeller (Enbridge)  
Tom Fridel (Enbridge)  
Kevin Turner (EPA)  
Miles Bartos (EPA)

**6 BRANCHES**  
(See Ops Chart)

### PLANNING SECTION

Mark Hamilton (Enbridge)  
Scott Harris (Enbridge)  
Brian Johnson (Enbridge)  
John Joeckel (Enbridge)  
Paul Eberth (Enbridge)  
Jim Morris (Enbridge)  
John McHugh (Enbridge)  
Steve Renninger (EPA)  
James Justice (EPA)  
Cheryl Sprague (EPA)  
Lori Muller (EPA)

(See Planning Chart)

### LOGISTICS SECTION

Lyle Meena (Enbridge)  
Steve Ostrodka (EPA)  
Greg Crable (EPA)

### GROUND SUPPORT

Alie Muneer (EPA)

### SUPPLY MANAGER

Jodie Opie (EPA)

### ORDERING MANAGER

Kristen Wiitala (Enbridge)

### FACL

Diana Gountanis (EPA)

### SECURITY

Sean Evans (Enbridge)  
Mike McDounough (EPA)

### COMMS UNIT

Alie Muneer (EPA)  
Thomas Matheson (EPA)  
Michael Otaru (EPA)

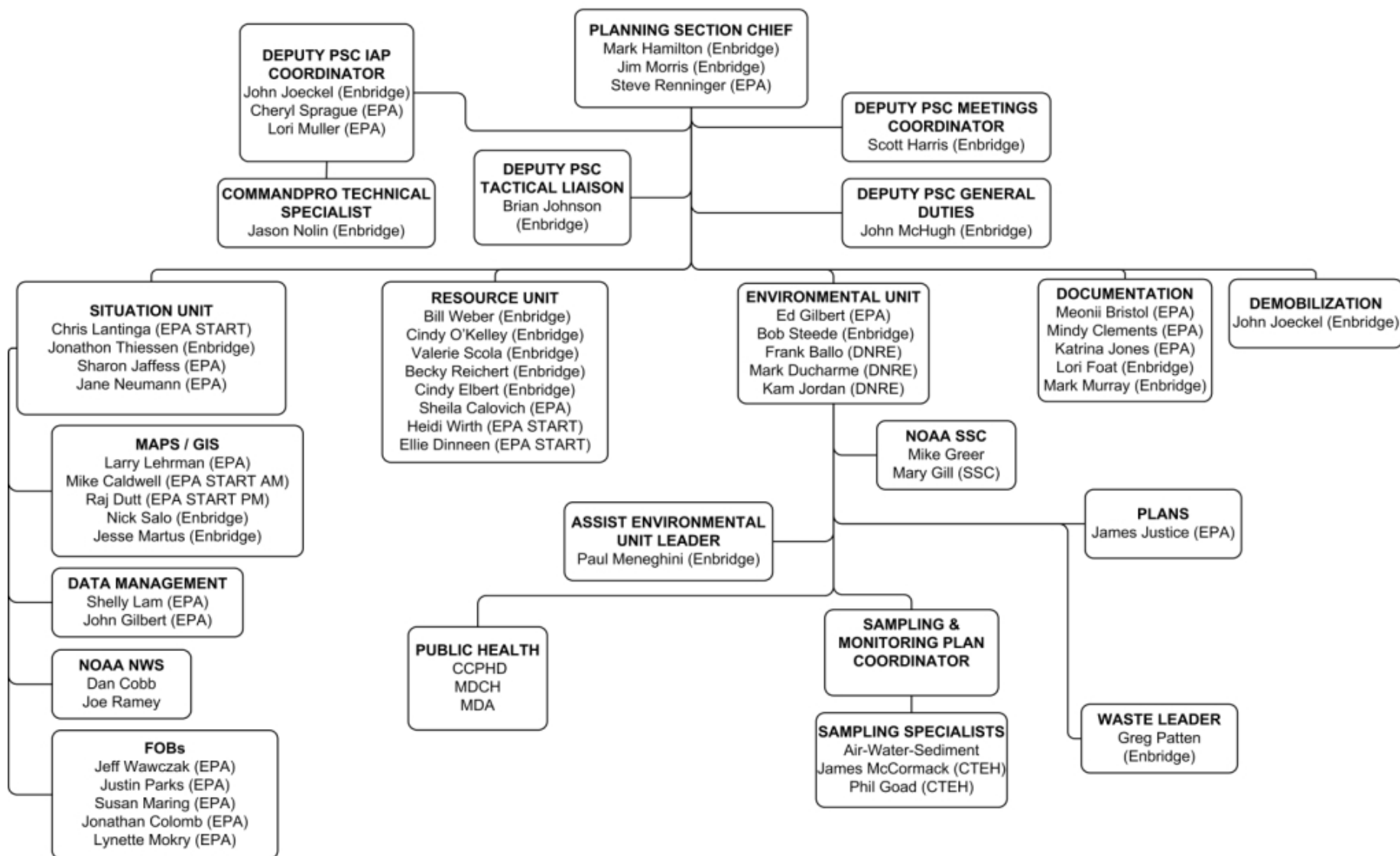
### FINANCE SECTION

Mark Maki (Enbridge)  
Howard Brown (Enbridge)  
Darlene Hainer (EPA)  
Richard Hackley (EPA)



ICS 207  
8/19/2010  
OP 8/20 – 8/21

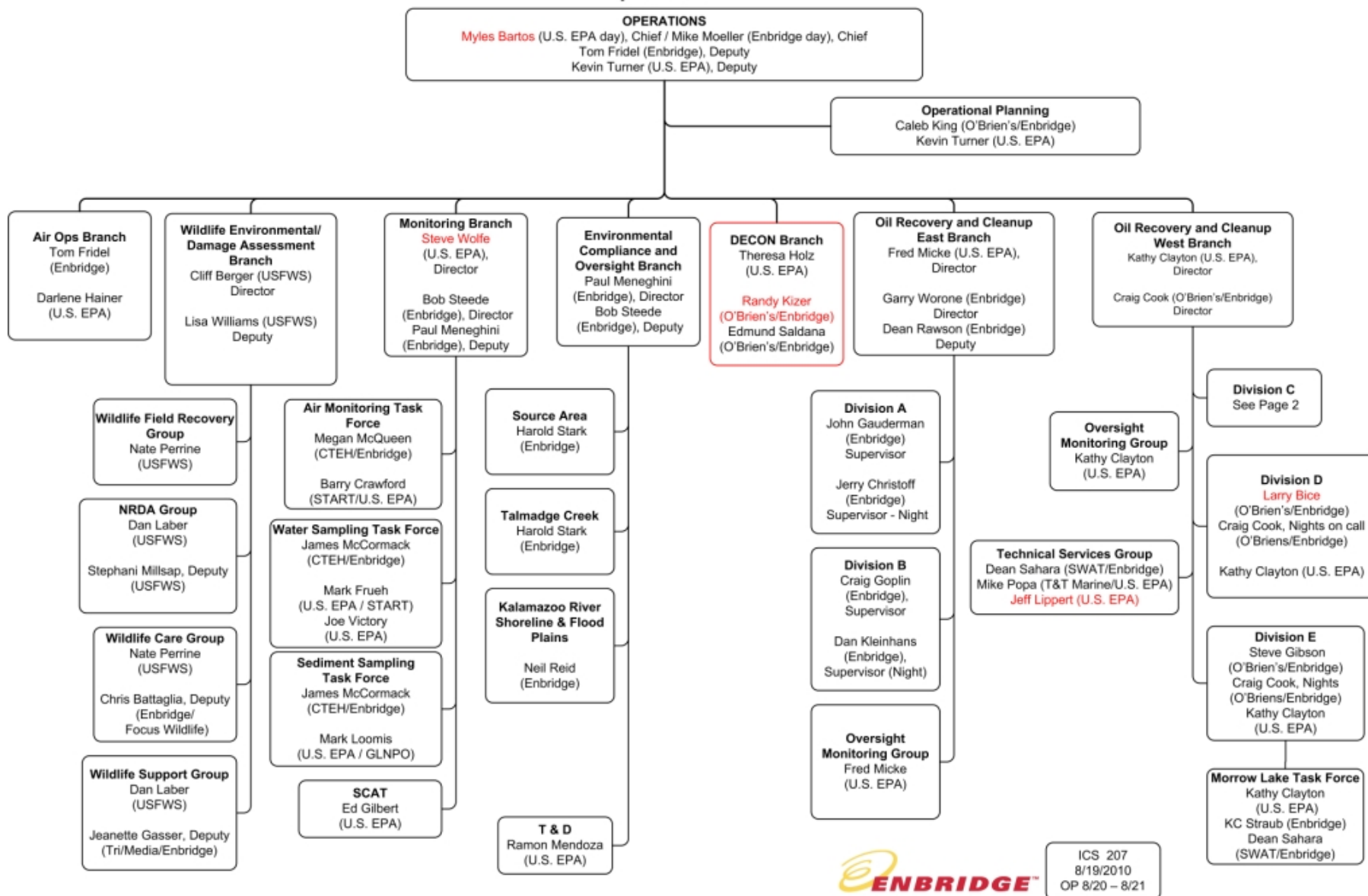
## Planning Section



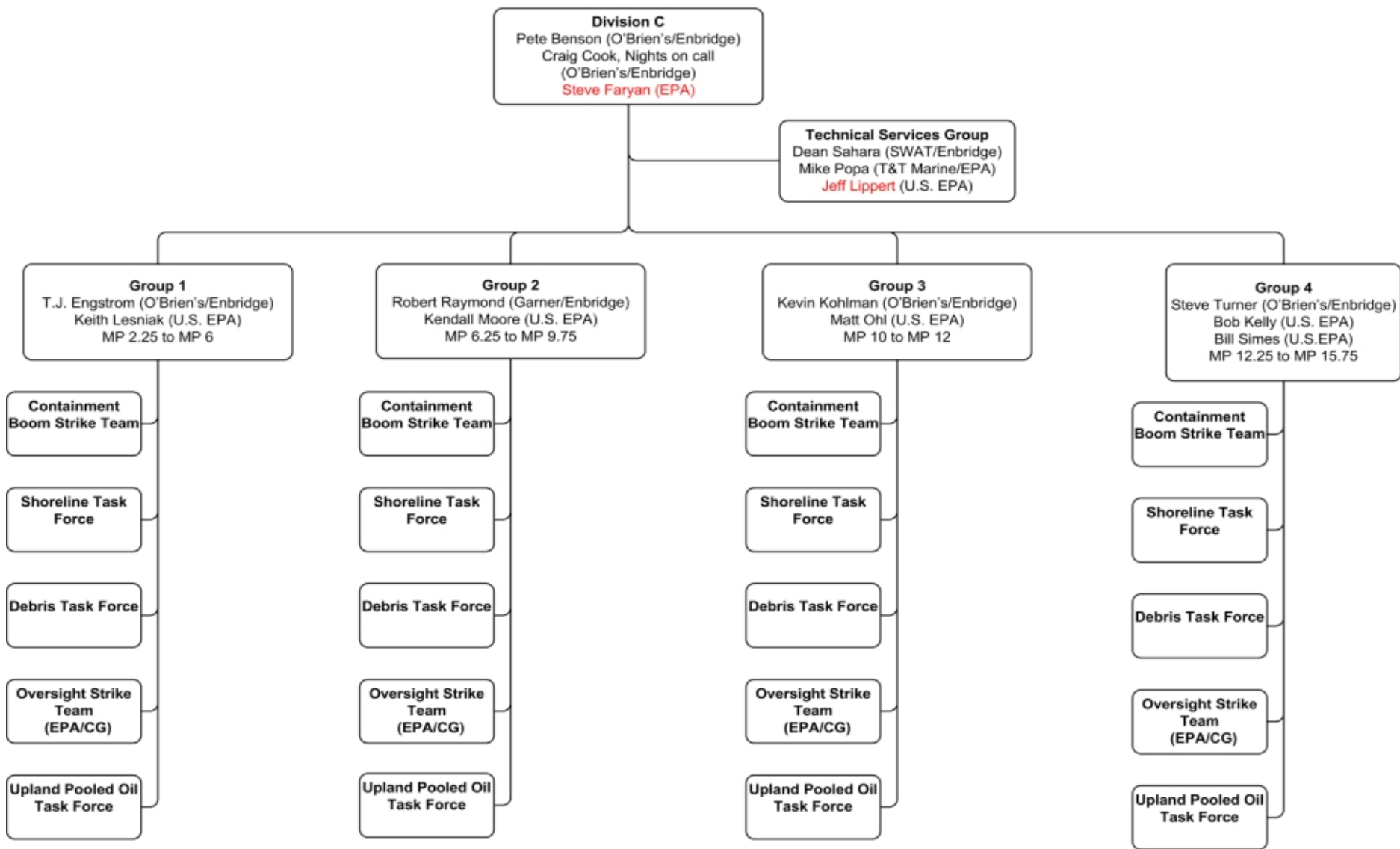




## Operations



## Division C



ICS 207  
8/19/2010  
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