

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 #32
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
Brian Whitsett, Michigan State Police, Emergency Mgt.
Michael Masterson, MDNRE
Kathy Schley, 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
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: 08/26/10

Reporting Period: 1900 hours 08/25/10 to 1900 hours 08/26/10

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 Action

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) Establish a separate Task Force to re-evaluate and enhance subsurface oil monitoring in the Kalamazoo River and at Morrow Lake, including a bottom survey and development of capture and management options.
- 2) Review SCAT recommendations with Science Team, with emphasis on Division C, to coordinate near-term cleanup efforts.
- 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) Enbridge to maintain primary responsibility for planning cycle and IAP development:
 - Monitor effectiveness of IAP briefing and use by Operations;
 - Reevaluate timing of operational period and meeting schedule; and
 - 0630 Operations briefing at the new CP with Command & General Staff.

1.3 Strategic Considerations

- 1) Implement characterization of submerged oil contamination in the Kalamazoo River System above Morrow Lake Dam.
- 2) Complete characterization of pooled oil in flood plain and upland areas in Division C and Division D.
- 3) Review potential completion status of Division A (Source Area).

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 map). 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 25 to 1900 hours on August 26, 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 conducting IAP briefings with all staff. Enbridge reported using black dirt rather than backfill material for wet area stabilization in Location A1 to Location A3 and reported it as effective. Enbridge reported their operations in Division A were strongly focused on completing cleanup efforts by August 27, 2010. Enbridge reported removing standing oil in Division A. Enbridge continued scraping soil with a backhoe and removing contaminated soil to the containment site. Enbridge reported continuing

with the approved Pipeline Repair Plan, including backfilling, chipping and clearing activities. Enbridge reported Division A nearing completion.

EPA

EPA observed that overnight backfilling efforts made significant progress. Hot spot excavation continues. EPA observed contaminated soil being removed for disposal. Wetland excavation continued. Testing of the pipe continues.

Division B

Enbridge

Enbridge reported conducting IAP briefings with all staff. Enbridge reported pushing cleanup efforts at an aggressive pace, excavating the swampy area at Location B3. Enbridge also reported ongoing boom and skimmer maintenance. Enbridge also reported continued oil collection at boom containment sites and replacement of contaminated boom as required. Crews worked on chipping and scraping of oiled bank vegetation and soil along Talmadge Creek. Enbridge reported laying swamp mat road along Talmadge Creek and constructing berms, flumes, and mat roads at Location B2.7.

EPA

EPA observed two backhoes excavating soil overnight at Location B2.7. Excavation appeared nearly complete in Location B4 to Location B5. Sheen and oil stringers were dramatically reduced in the larger pond near Location B4.5. EPA did not observe any visible sheen reaching the Kalamazoo River. Three underflow dams now have been constructed between Locations B4.7 and B5.0. EPA observed hot spot excavation continuing across all of Division B.

Submerged Oil Task Force (Division C, D, and E)

A representative from the Submerged Oil Task Force observed data gathering at Morrow Lake. Three sediment cores were collected from 0' to 2.6' below ground surface at Mile 37 in Morrow Lake. After taking the cores, sheen was observed as the hole filled with water. Pooled oil was observed on an exposed sandbar. Sheen appeared whenever the boat moved. Sheen was noted throughout Morrow Lake.

Division C

Enbridge

Enbridge reported its operation is ramping up in Division C as resources are shifted from Division D and Division E. During this operational period, Enbridge reported that more than 160 boats were deployed and is expecting the number to continue to rise. Enbridge reported a focus on pooled oil on Island D and Island E. Enbridge reported that it continued to use the new island access plan to minimize vegetation damage. Enbridge

reported conducting island and shoreline cleaning and mobilized a new onsite contractor at Location C3. In Location C5, Enbridge reported 34 personnel working between MP 14.5 and MP 15 performing shoreline cleanup. Enbridge reported an issue with hard boom not arriving in a timely manner. Enbridge reported it completed development of the new deployment site at MP 14. Enbridge reported conducting shoreline vegetation clearing at MP 14.25.

EPA

EPA observed crews clearing oiled vegetation over the entirety of Island E. EPA discussed a cleanup approach for addressing pools of weathered oil in the interior of this and other islands with the Enbridge supervisor. EPA observed oil soaked absorbent boom at MP 7.5 and MP 9.0 that needed to be maintained. EPA collected GPS coordinates for three areas with pooled oil within MP 6.25 to MP 9.75. EPA observed Enbridge workers clearing overbank at MP 6.25 up to 100 feet from the bank.

Division D

Enbridge

Enbridge reported boom management, vegetation removal, and oiled debris removal continuing throughout the operational period. Enbridge reported addressing settlement issues on some earlier placed lines of gabion baskets and the construction of additional gabion baskets. Enbridge reported that it shut down Location D 2.5 as part of the consolidation. Enbridge reported completion of X-TEX sediment installation. Enbridge reported that low water levels were creating problems for boat access. Enbridge reported it is adjusting tactics, deploying smaller boats and utilizing waders to reach shallow areas.

EPA

EPA observed completion of the installation of the X-TEX sediment boom just above Location D4. EPA observed ongoing boom maintenance activities, shoreline cleaning, and the collection of oiled debris and vegetation. EPA START observed continuing sheen on north bank of Location D5 (Custer Street Bridge). EPA observed Location D 2.5 has been shut down with temporary fencing blocking shoreline access except for the gabion basket assembly area. EPA observed resource consolidation was complete, allowing resources to relocate to Division C.

Division E

Enbridge

Enbridge reported conducting a last sweep through Division E in preparation for the upcoming SCAT assessment. Enbridge reported vegetation and debris removal today. Enbridge reported deploying more silt fence in Location E4 and investigating Morrow Lake for sheen and tar balls.

EPA

EPA reported the demobilization of the MudPuppy II. EPA reported all original gabion baskets have been switched for the latest design. EPA also observed oil collection operations, shoreline cleaning, skimming operations, and boom maintenance.

Branch Operations

In addition to the East and West Recovery Branches, EPA, USCG and Enbridge Operations have five Branches that conduct activities in all Divisions: DECON, Environmental Compliance and Oversight; Monitoring; Wildlife Environmental/Damage Assessment; and Air Ops.

Environmental Compliance and Oversight Branch

Enbridge reported Division A as 90% complete. Enbridge reported they met with EPA to refine the SCAT process for the West Branch. Enbridge also reported they continued providing oversight for cleanup activities within Divisions C, D and E.

EPA observed sampling of air monitoring, sediment, and surface water samples.

DECON Branch**Enbridge**

Enbridge is making final revisions to the approved decontamination plan.

EPA

EPA conditionally approved the decontamination plan.

Monitoring Branch**Enbridge**

The air sampling program continued to collect 24-hour grab samples, summa mini-can samples, grab samples, and passive dosimeter samples in addition to the real-time air monitoring samples. Enbridge reported that its air sampling program continued to focus around Baker Estates mobile home park, the Ceresco Dam, and the leak site.

Enbridge reported collecting the following samples:

Sample Type	Number collected*
Surface Water	19
Vertical Water Column Samples	8
Private Well Samples	1
Sediment Samples	9
Other	0
Soil Samples	0

*Reflects samples collected 08/26/10

EPA

EPA continued air monitoring in all divisions. Tedlar bag air samples were collected in the 11 grid areas of Division B exposure units and in the five focus areas (Daycare Center, Baker Estates, Frac Tank Storage Area, Squaw Creek and Ceresco Dam). EPA shadowed one Enbridge air monitoring crew in Division B and Division C. No odor complaints were reported for this operational period. All Tedlar bag samples submitted for analysis were below 6 ppbv for benzene.

EPA collected the following monitoring samples:

Media	Sample Type	Number collected*
Air	Summa Canister	0
Air	Tedlar Bags	32
Air	Monitoring Samples	287
Surface Water	Grab	0
Sediment	Grab	0

*Reflects samples documented in SCRIBE as of 8/26/10.

During this operational period, the four SCAT teams assessed portions of Division C. One SCAT team completed Location C3.2. The other SCAT teams worked in Location C5.75 to Location C7.0.

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 229 animals in live care. A total of 335 animals have been rehabilitated and released. USFWS is assessing implementation of floodplain cleanup recommendations, evaluating fertilizer application to enhance bioremediation, assessing and addressing oil residuals in sediment. USFWS continues to collect ephemeral data for the NRDA, primarily floodplain surveys of percentage of oiling and worked on protocols to determine baseline conditions of plant communities. MDNRE staff sampled mussels and sediments at Location C3 (Historic Bridge Park), and Location C1.3 (11 Mile Road). An MSU graduate student collected data on algae Augusta. A USFWS reconnaissance team observed heavy sheen on the Kalamazoo River close to Morrow Lake. Many sheen

ribbons were present for approximately a mile near MP 37.5. The sheen was heavier on the north shoreline than the south shoreline. The observer, who had last been on the river on 8/17/10, noted this is a significant change in conditions.

Air Ops Branch

Enbridge

Enbridge reported conducting 6 over-flights. Enbridge reported an improved mud-line at the confluence of Talmadge Creek and the Kalamazoo River. Enbridge reported no visible sheen trailing from the islands in Division C. Enbridge noted new boom in place around the islands in Division C. Enbridge reported sorbent boom above the Ceresco Dam where crews were actively spraying and directing sheen into the boom areas for collection. Enbridge reported no visible sheen flowing over the Ceresco dam. No visible sheen was reported on Morrow Lake and no sheen was observed in the wetland area at the delta of the lake. Two sheen monitors continue to operate on Morrow Lake.

EPA

EPA START accompanied Enbridge on one over-flight for observation in preparation of the daily situational briefing. Since August 23, 2010, both the EPA START SitRep contractor and Enbridge have been using the Enbridge funded helicopter for their daily over-flights. The EPA helicopter will be available, as needed, for IC and other federal needs. During the over-flight, EPA observed a significant reduction in the sheen in the Mill Pond. EPA also observed boats creating a wake in the river.

2.1.2 Progress Metrics

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

Boom Report*

Number of Locations	33
Boom Deployed (feet)	145,118

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.

*as of 08/25/10 1900

Soil and Debris Waste Tracking

Waste Stream	Quantity Shipped (8/25/2010)	Cumulative Quantity Shipped*
Haz Soil ¹	801 yd ³	15,319 yd ³
Non Haz Soil ²	300 yd ³	300 yd ³
Debris ³	850 yd ³	11,350 yd ³

* 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. Haz (benzene-impacted) soil is being sent to Envirosafe (Oregon, OH).

2. Non-hazardous soil is being sent to Westside Recycling (Three Rivers, MI, as of August 24, 2010).

3. Roll-off boxes containing waste sorbents, boom, pads, plastic, PPE, and oiled vegetation and biomass are being sent to EQ facility (Michigan Disposal) in Wayne, MI.

Oil/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.

Oil/Water Collected by Location	
Location	Cumulative Total Collected (gallons) (8/26/10 0700)
Division A	4,421,240
Division B	2,883,075
Division C	754,800
Division D	117,825
Division E	45,350
Undetermined	109,200
TOTAL	8,331,490

Oil-Water Separation at Tank 1605, Enbridge Facility in Griffith, IN Facility (gallons) (8/25/10)	
Oil	659,000
Water	1,439,000
TOTAL	2,098,000

Liquid Shipped Off-Site (8/25/10)		
Oil/Water Leaving Site	Destination	Cumulative Quantity Shipped (gallons)
Haz Water	Dynecol, Detroit, MI	1,857,383
Treated Non Haz Water	Dynecol, Detroit, MI	124,700
Treated Non Haz Water	Battle Creek POTW	1,968,700
Treated Non Haz Water	Liquid Industrial Waste Services, Holland, MI	332,700
Treated Non Haz Water	Plummer, Kentwood, MI	321,000
Oil/Water	Tank 1605, Enbridge Facility, Griffith, IN	2,098,000
TOTAL		6,702,483

Oil/Water Volume Summary (gallons)	
Oil/Water Collected	8,331,490
Oil/Water Shipped Off-site	6,702,483
OILY WATER REMAINING ON-SITE	1,629,007

2.2 Planning Section

ENVL participated in the Submerged Oil Task Force meeting and met with the PIO to discuss data transfer transparency issues. The Data Management/GIS Unit incorporated Calhoun County and Kalamazoo County sampling data into the EPA database. The DMU continued importing preliminary and validated data into SCRIBE. EPA GIS continued the map processing, as requested.

EPA FOBs observed a significant increase in cleanup activity throughout Division C. EPA FOBs observed vegetation removal as the focus of boat activities in all Division C Locations. EPA observed debris removal and boat launch activities at Locations C0.1, Location C0.3, and C0.5. Enbridge reported to EPA FOBs removal of an approximate average of 1,300 bags of debris from the staging area at Location C0.5. EPA observed completion of vegetation removal at Location C1 and completion of contaminated soil removal from MP 6.0 to MP 6.75. EPA reported Enbridge operations were mobilizing downstream to Location C2 to remove contaminated soil and vegetation. In Location C3 Enbridge reported to EPA FOBs that 55 workers began vegetation removal and soil excavation between MP 9.0 and MP 9.75. EPA observed visible sheen along both

shorelines between MP 9.0 and MP 9.75. EPA observed vegetation removal and sheen collection in Location C5 and Location C6.

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

There was no Public Health Workgroup meeting today. Public Health reviewed air sampling and air monitoring data. There were no detections for benzene at or above the 6 ppbv action level.

2.3 Logistics Section

EPA Logistics continued to work with Enbridge logistics staff to resolve problems with trailers at the new ICP. Most continuing safety issues identified by MIOSHA have been corrected. Checks on the air conditioners are being performed daily. The lavatory pumping has been increased to four times daily.

2.4 Finance Section

The current NPFC issued ceiling is \$16 million. Approximately 77.3% of the ceiling has been spent through August 25, 2010, with a burn rate of \$302,962 per day. These cost summaries reflect only EPA-funded expenditures for the incident.

FPN E10527 - Enbridge Pipeline Oil Spill

As of: 8/25/2010

		Est. Expended	Est Burn Rate (Lastest Daily)
ERRS Contractors			
EQM (EPS50802)	T057	\$1,258,770	\$0
	T060	130,938	14,000
LATA (EPS50804)		1,451,396	0
ER LLC (EPS50905)		723,669	0
ERRS Contractors		\$3,564,773	\$14,000
START Contractor			
WESTON (EPS50604)		3,631,951	124,800
Response Contractor Sub-Totals		\$7,196,724	\$138,800
EPA Funded Costs:			
Total EPA Costs		2,544,449	95,450
Pollution Removal Funding			
Agreements:			
Total Other Agencies		\$1,096,392	\$31,157
Sub-Totals		\$10,837,565	\$265,407
Indirect Cost (14.15%)		1,533,515	37,555
Total Est. Oil Spill Cost		\$12,371,081	\$302,962

2.5 Safety Officer

The EPA Safety Officer Reported a minor illness. The Enbridge Safety Officer reported several minor first aid incidents involving poison ivy and instructed staff on identifying poison ivy. Additionally, Enbridge reported one minor injury, one minor illness, and one injury pending classification. The Enbridge Safety Officer reported a minor injury resulting in law enforcement response. No other incidents were reported.

2.6 Liaison Officer

The LNO followed up on items from the August 25, 2010, meeting of the Assisting and Cooperating Agencies. The LNO provided information to the City of Battle Creek about providing a children's tour of the Wildlife Recovery Center. The LNO also referred a

report of oil on or near a residential property in Calhoun County to Operations. The LNO referred to the PIO requests from the City of Battle Creek and the Global Citizens River Conservation for EPA representatives to speak at two separate events on October 2.

2.7 Information Officer

PIO/JIC received three requests for speakers. These requests included two from the City of Battle Creek and one from the City of Marshall referred to the PIO from the LNO.

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

Media Inquiry Line (877-440-7157)

Calls received during reporting period: None

Enbridge reported the following call volume and community center visits:

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

Calls received during reporting period: 80

Community Center Visits: 48

Visits by location during reporting period:

Battle Creek 31

Marshall 17

Enbridge reported that it received five inquiries from its www.response.enbridgeUS.com website.

2.8 Response Actions to Date

Response Actions to date may be found in Situation Reports 1 through 31.

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

51st 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

4.0 Personnel On Site

Agency/Entity	Numbers Reported
EPA	45
START	63
Calhoun County Public Health Dept. (CCPH)	4
Calhoun County (CC) Sheriff	6
City of Battle Creek	3
Kalamazoo Sheriff	2
MDA	0
MDCH	0
MDNRE	21
Michigan State Police (MSP)	7
NOAA - National Weather Service	2
NOAA- NRDA	2
USCG	8
USDA	2
USFWS	12
USFWS Contractors	2
Enbridge	19
Enbridge Contractors	1602
Total	1800

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 ₂ 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 ³	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>.

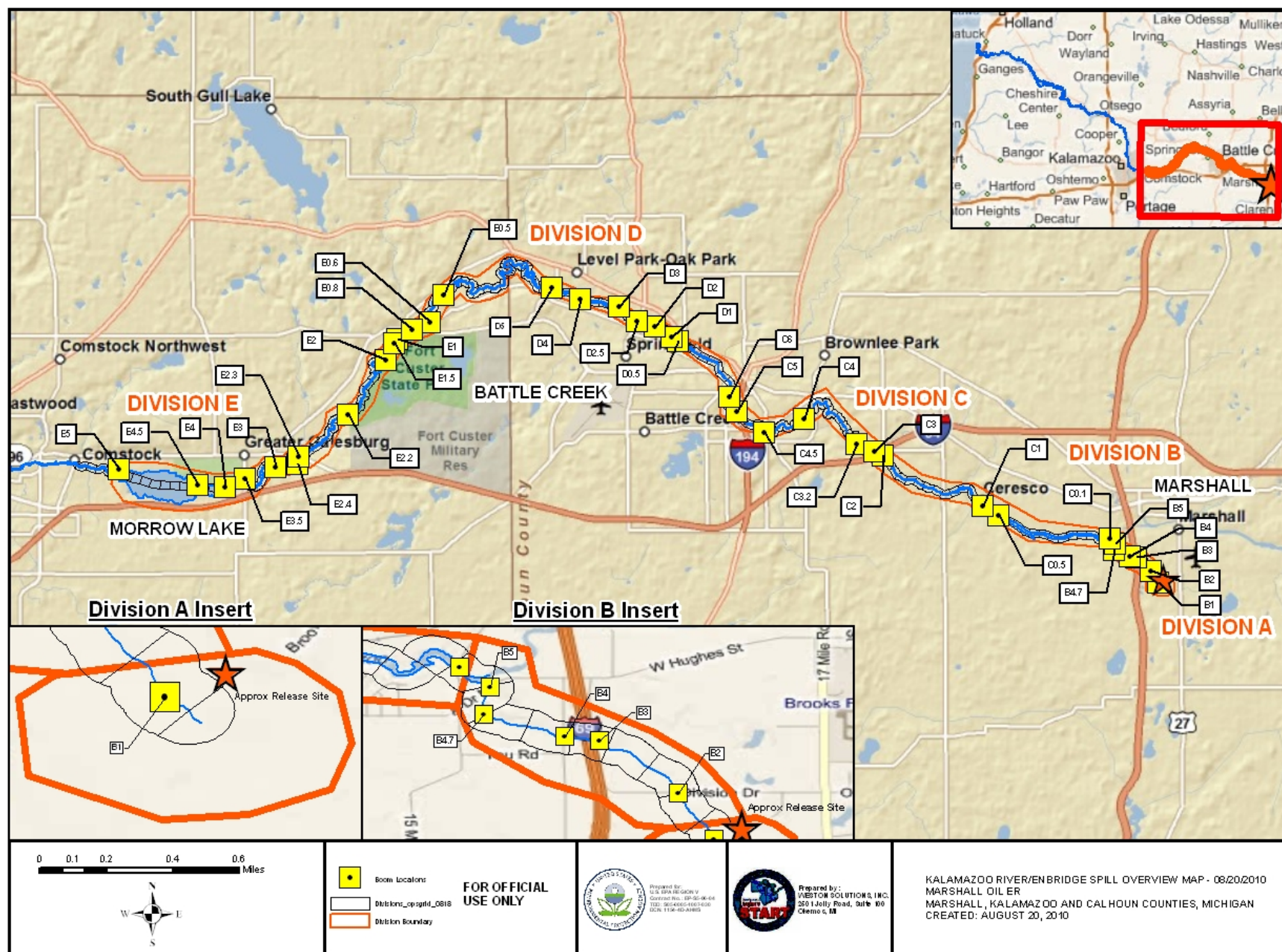
6.2 Reporting Schedule

SITREPs have been created daily and will continue until the UC establishes a different reporting schedule, in conjunction with the planning cycle.

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

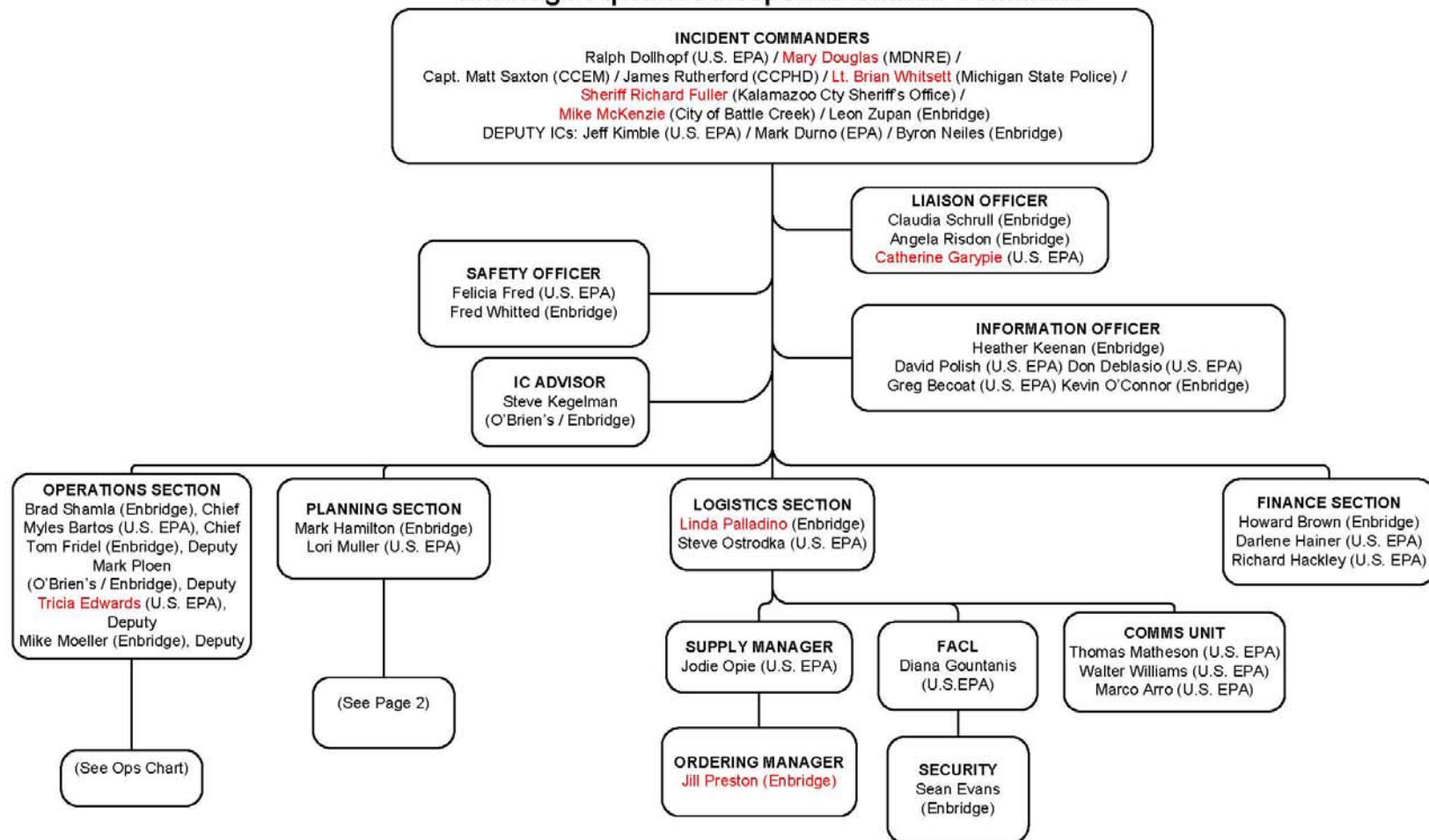


Figure 1 Unified Command



ICS 207
 8/25/2010
 OP 8/26 - 8/27

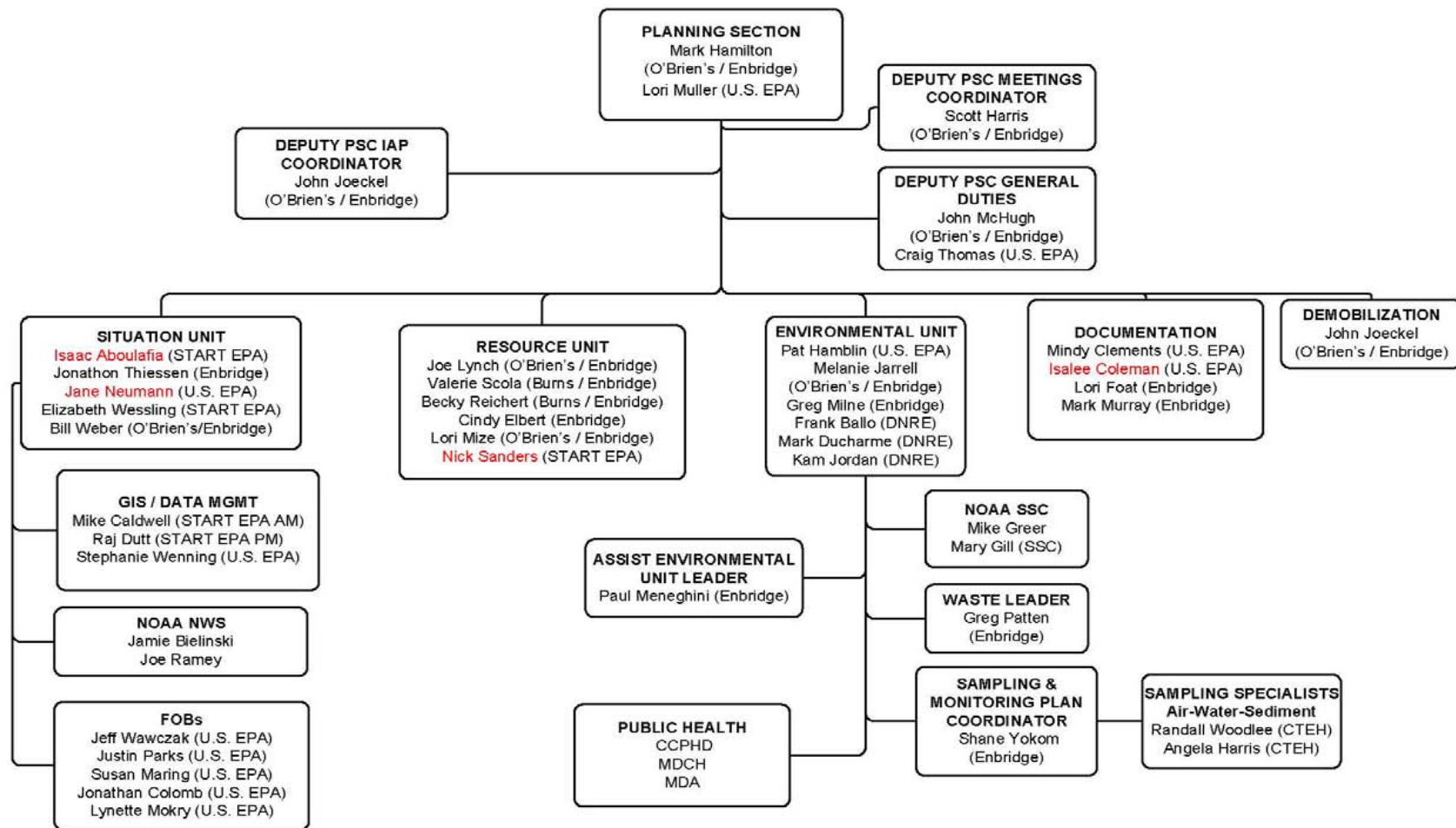


Figure 2 Planning Section



ICS 207
8/25/2010
OP 8/26 – 8/27



Operations

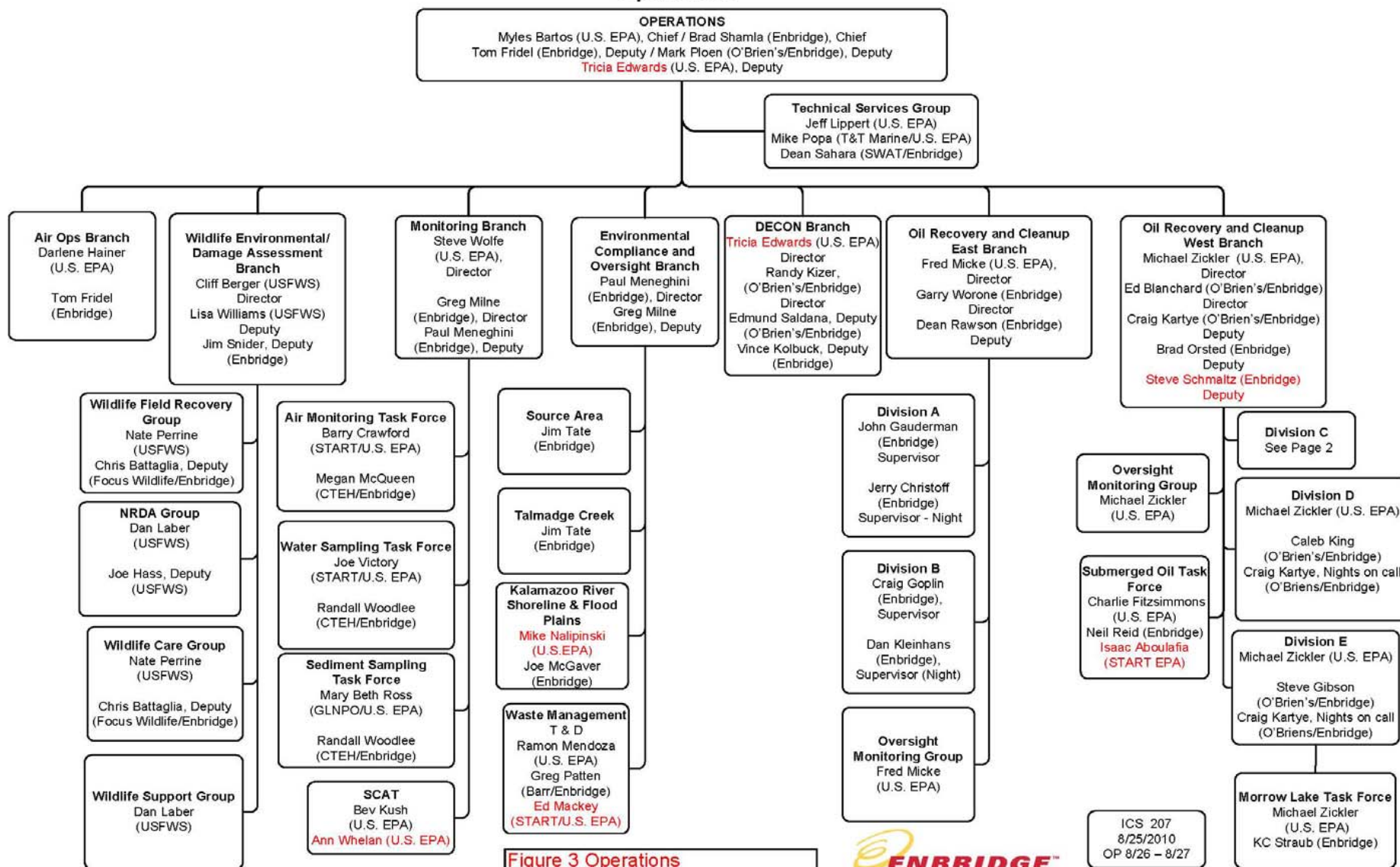


Figure 3 Operations



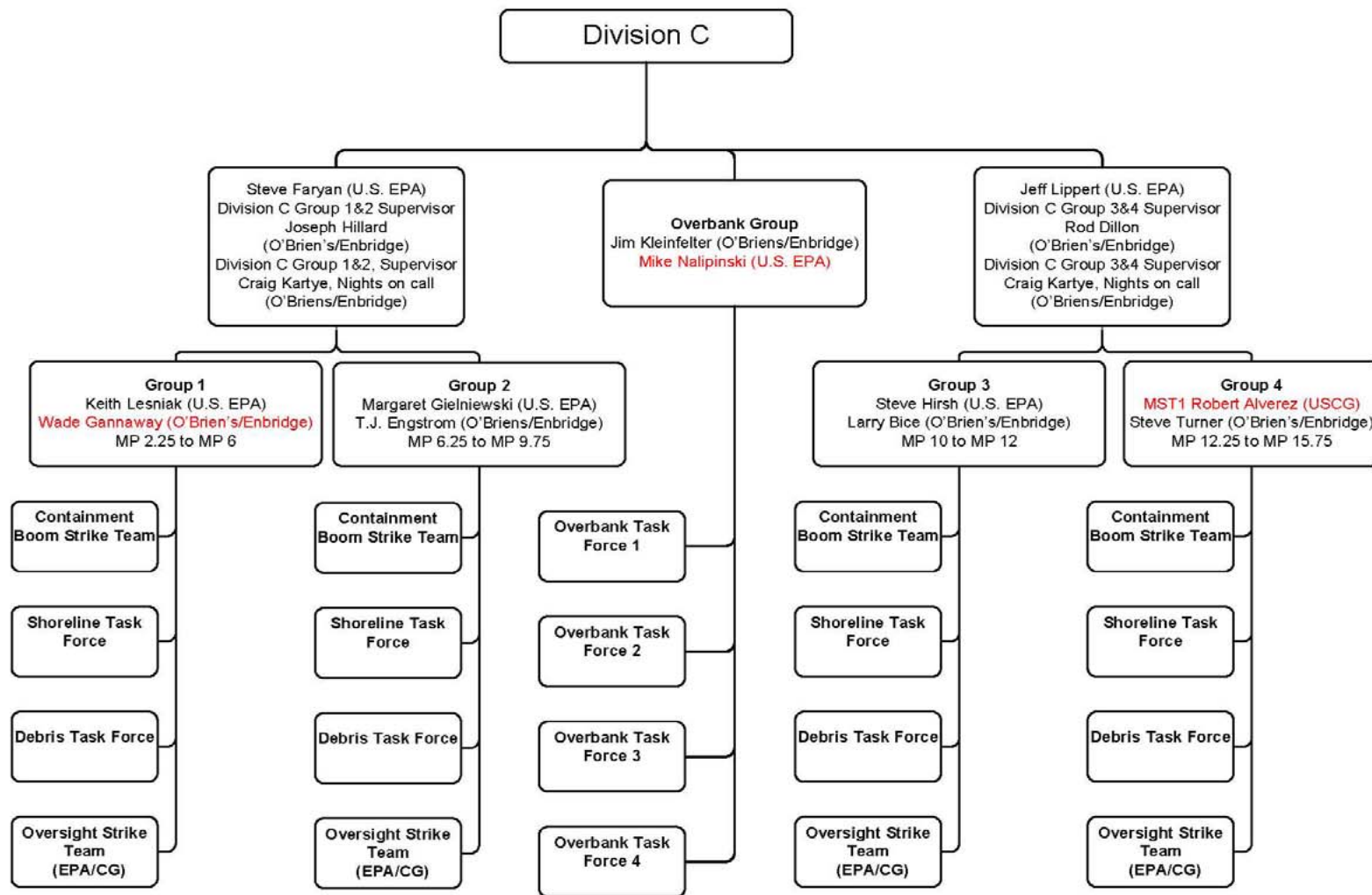


Figure 4 Division C



ICS 207
8/25/2010
OP 8/26 – 8/27