

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 #27
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: Jeff Kimble, 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: 08/21/10

Reporting Period: 1900 hours 08/20/10 to 1900 hours 08/21/10

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) 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) Discuss with MDNRE for additional 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 20 to 1900 hours on August 21, 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 continued vacuuming oil as well as excavating, backfilling, and dewatering the oil containment within Division A. Enbridge reported finishing backfilling the majority of the containment box. SCAT operations, chipping, soil scraping and the hand-digging of hotspots continued within Division A. They conducted a survey of the top of the pipe.

EPA

EPA observed the initiation of Enbridge backfilling operations which continued overnight. At 03:00, an approximate 85-foot area was filled to grade. EPA observed Enbridge's continuing dewatering and excavation efforts. Sandblasting and coating of the pipe was completed. Hydrostatic testing of the pipe continues. Elsewhere in the Division, swamp mats were removed from low-lying areas.

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. Crews worked on scraping oiled bank vegetation and soil along Talmadge Creek. Low-pressure, high-volume ambient water flushing continues in strategic areas.

EPA

EPA observed continued skimming operations. EPA and START collected turbidity data during bank excavation along Talmadge Creek. Silt fence placement along Talmadge Creek was completed to Location B3 and along the west side of I-69 (to Road Mile 15.5). EPA observed a 200 foot stretch between I-69 and B4 without boom in place and notified Enbridge. Several new or increased areas of oil were observed between Location B4 and Location B5. Gas-fired blowers were again noted near Location B4.2 on the bank. EPA observed the completion of swamp mat placement. Oiled frogs were observed between the I-69 culvert and Location B5. The Wildlife Branch Director was notified directly.

EPA observed an operation shut down near Location B4.0 at approximately 10:30 due to a benzene reading above the action level during ongoing air monitoring. EPA and Enbridge Safety Teams were notified. On-going monitoring indicated a drop in benzene levels and work resumed.

Division C**Enbridge**

Enbridge reported that it is standing up a new boom deployment site. Enbridge reported that it maintained boom and replaced absorbents, sweep and snare. Additionally, Enbridge reported that oil collection was going well through the use of two catch basins.

EPA

EPA observed Enbridge performing boom maintenance, vegetation removal, snare boom and pad replacement and shoreline washing. EPA coordinated with NRDA to reduce the number of boats in Group 4 (MP 12.25-MP 15.75) and minimize duplication of efforts in identifying off-shore pooled oil. Additionally, Division C and the SCAT team have identified and mapped the off-shore pooled oil and formed a strike team for removal of the identified oil. EPA observed Enbridge collecting sediment core samples immediately upstream of the Ceresco Dam to visually evaluate for oil impacts. EPA was informed by an Enbridge representative that night operations in Division C have been discontinued.

EPA observed improvement in PPE usage. EPA noted that ninety percent of the boats in Group 2 (MP 6 to MP 10) were not on the water by 08:30. Also, oiled sorbent boom was observed upstream of the Wattles Road Bridge.

Division D**Enbridge**

Enbridge reported that boom maintenance, vegetation removal, and skimming operations continued.

EPA

EPA observed boom maintenance activities and the collection of oiled debris and vegetation.

Division E**Enbridge**

Enbridge reported cutting vegetation and removing debris today. Enbridge set up decontamination for boats and will begin using E2 for boat launching.

EPA

EPA observed oil collection operations conducted in Division E. The air curtain bubbler was noted as not functioning at Location E1. The air curtain working at Location E3 is again functioning. Safety violations were noted in RV Mud Puppy on Morrow Lake and are being addressed by the Safety Officer.

Branch Operations

In addition to the East and West Recovery Branches, 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. Operations stood-up a DECON Branch.

Environmental Compliance and Oversight Branch

Enbridge reported that it met with EPA Representative to review soil sampling techniques. Enbridge reported they collected 40 soil samples and provided oversight for cleanup activities within Divisions A, B and C.

EPA observed sampling of contaminated soil, air monitoring, surface water, 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 and report that approval of that plan is anticipated by the end of the day (August 21st, 2010).

EPA

EPA reviewed the draft decontamination plan and evaluated potential decontamination sites with Enbridge.

Monitoring Branch

Enbridge

Enbridge reported that they collected 15 surface water samples, 10 potable water samples, and 1 sediment sample. The air sampling program continues 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.

EPA

EPA conducted continued 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. Tedlar bag sampling results included five positive detects for benzene; however, no detects were above the 6 ppbv action level.

EPA collected the following monitoring samples:

Media	Sample Type	Number collected
Air	Summa Canister	0
Air	Tedlar Bags	32
Air	Monitoring Samples	314
Surface Water	Grab	9
Sediment	Grab	5

During this operational period both SCAT teams performed shoreline and over bank oiling analysis in sections between Mileposts 7.5 through 8.0.

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 211 animals in live care, the majority of which are Canada Geese and turtles. A total of 217 animals have been rehabilitated and released.

Air Ops Branch

Enbridge

Enbridge flew 11 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 one over-flight 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)	171,162*

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 8/21/10 07:00

Waste Tracking

Waste Stream	Quantity Shipped 8/19/2010	Cumulative Quantity Shipped*	Quantity On-Site Awaiting Disposal*
Soil ¹	990 yd ³	11,539 yd ³	17,625 yd ³
Debris ²	700 yd ³	7450 yd ³	NA
Untreated Water ³	121,824 gallons		
Pre-treated Water ⁴	76,000 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	3,999,781
Division B	2,559,425
Division C	737,900
Division D	117,825
Division E	43,750
Undetermined	109,200
TOTAL	7,567,881

Oily Water Shipped Off-Site		
Oily Water Leaving Site	Destination	Cumulative Quantity Shipped (gallons)
Untreated Water (Haz Waste)	Dynecol, Detroit MI	1,394,475
Pre-treated Water	Battle Creek POTW	1,968,700
Oily Water	RP facility, Griffith IN	2,076,000
TOTAL		5,439,175

Oily Water Volume Summary (gallons)	
Oily Water Collected	7,567,881
Oily Water Shipped Off-site	5,439,175
OILY WATER REMAINING ON-SITE	2,128,706

Oil-Water Separation at Griffith IN Facility (gallons)	
Oil	633,000
Water	1,443,000
TOTAL	2,076,000

2.2 Planning Section

The ENVL discussed transitioning of sampling activities to Enbridge. The Science Team reviewed air data and groundwater and sediment sampling results and beginning trend analysis. The ENVL and countermeasures participated with the Science Team reviewing surface washing procedures and discussed with Operations Division. The ENVL worked with GIS and data analysts to evaluate and map surface water, sediment and air trends over the event period. ENV continued the development of comprehensive environmental database.

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 Unit meeting today.

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. All twelve trailers have arrived at the new location. Electrical wiring is complete and information technology wiring is being installed. Installation of a boardwalk between trailers continues.

2.4 Finance Section

The current NPFC issued ceiling is \$13 million. Approximately 86.3% of the ceiling has been spent through August 20, 2010, with a burn rate of \$350,365 per day. These cost summaries reflect only EPA-funded expenditures for the incident.

FPN E10527 - Enbridge Pipeline Oil Spill
As of: 8/20/2010

ERRS Contractors	Est. Expended	Est Burn Rate (Lastest Daily)
EQM (EPS50802)	TO-57	\$1,286,893
	TO-60	148,000
LATA (EPS50804)		1,451,396
ER LLC (EPS50905)		723,669
ERRS Contractors		\$3,609,958
START Contractor		
WESTON (EPS50604)		2,948,111
Response Contractor Sub-Totals		\$6,558,069
EPA Funded Costs:		
Total EPA Costs		2,058,953
Pollution Removal Funding		106,953
Agreements:		
Total Other Agencies		\$1,212,712
Sub-Totals		\$9,829,734
Indirect Cost (14.15%)		1,390,907
Total Est. Oil Spill Cost		\$11,220,641
Oil Spill Ceiling authorized by USCG		\$13,000,000
Oil Spill Ceiling Available Balance		\$1,779,359
Est. Percentage Spent		86.3%

2.5 Safety Officer

One minor first aid injury was reported. Work at Location B4 was suspended due to an elevated benzene level. No injuries or exposures were identified during this incident and work resumed.

2.6 Liaison Officer

The LNO reported no activity.

2.7 Information Officer

PIO/Community Involvement staff met with the Enbridge PIO staff to discuss long-term issues and plans. Several items were identified for action by both staffs.

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: None

Enbridge reported the following call volume and community center visits:

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

Calls received during reporting period: 72

Community Center Visits: 79

Visits by location during reporting period:

Battle Creek	59
Marshall	20

Enbridge reported that it received seven inquiries from its 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

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. Personnel On Site

Agency/Entity	Numbers reported
EPA	54
START	67
Calhoun County Public Health Dept. (CCPH)	2
Calhoun County (CC) Sheriff	11
City of Battle Creek	3
Kalamazoo Sheriff	2
MDA	0
MDCH	0
MDNRE	18
Michigan State Police (MSP)	7
NOAA - National Weather Service	2
NOAA- NRDA	1
USCG	14
USDA	4
USFWS	11
USFWS Contractors	2
Enbridge	21
Enbridge Contractors	1384
Total	1603

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>.

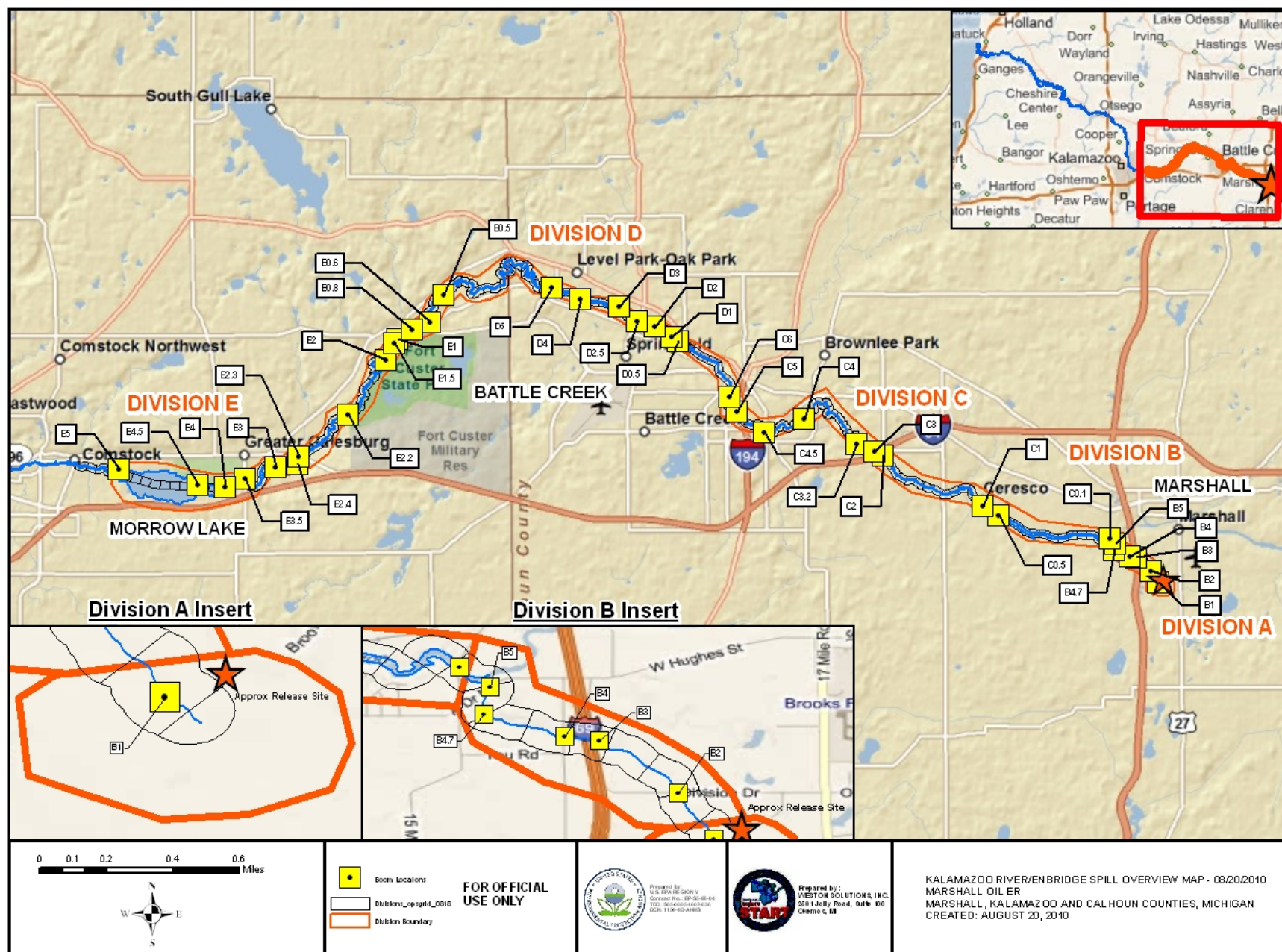
6.2 Reporting Schedule

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

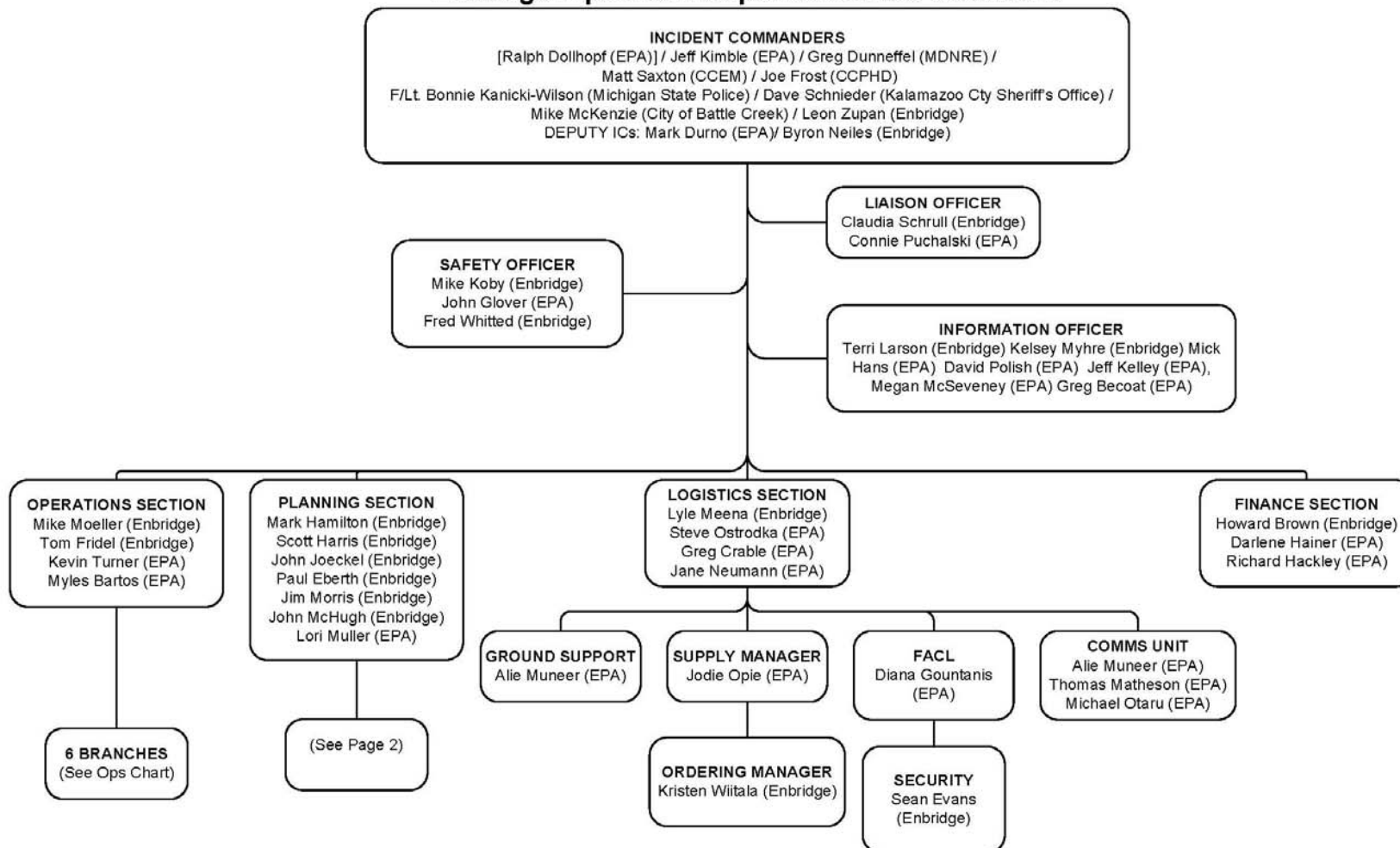
See attached Map, entitled “Kalamazoo River/Enbridge Spill Overview Map,” for more information.

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



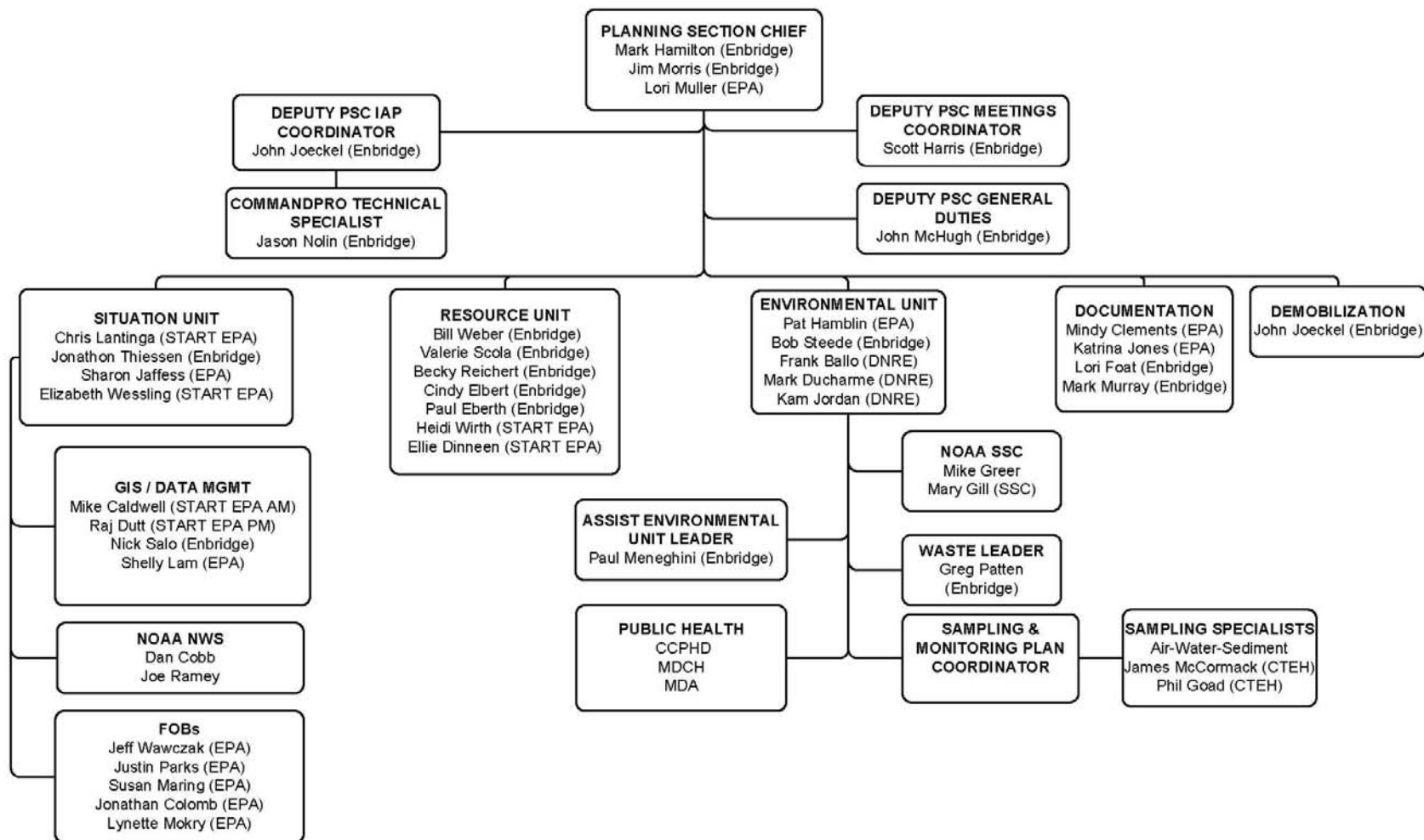


Enbridge Pipelines Response Unified Command



ICS 207
 8/20/2010
 OP 8/21 – 8/22

Planning Section





Operations

