

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 #40**
Kalamazoo River/Enbridge Spill
Z5JS
Marshall, MI
Latitude: 42.2395273 Longitude: -84.9662018

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Date: 9/3/10

Reporting Period: 1900 hours 9/2/10 to 1900 hours 9/3/10

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 Objective and Command Emphasis

The following incident objectives and command emphasis are taken from the IAP for the Operational Period September 2, 2010, 0700 to September 4, 2010, 0700.

Incident Objectives

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

Command Emphasis

1. Continue to evaluate and enhance submerged oil monitoring in the Kalamazoo River and at Morrow Lake, including assessment, mapping and development of near and long-term capture and management options.
2. Complete final assessment and evaluation of Division A and continue consideration of final assessment process in Division B.
3. Complete necessary sampling, grade restoration and stabilization work along Talmadge Creek as appropriate in accordance with MDNRE guidance.

1.3. Strategic Considerations

- 1) Emphasize need for awareness of local traffic and back-to-school safety considerations across all site work locations.
- 2) Emphasis with Enbridge to get submerged oil recovery underway at Ceresco Dam.

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 September 2, 2010 to 1900 hours on September 3, 2010:

Division A

Division A has extended into the upstream portion of Division B (to the upstream side of Location A2) since the operations required there are more similar to those in Division A than Division B.

Enbridge reported the following:

- Continuation of minor scraping at Location A4 and A6.
- Cleaning of hot spot in Location A5.
- Removal of filter basket and Geotech from Location A5.

EPA observed the following:

- Completion of sampling, grade restoration, and stabilization in accordance with MDNRE guidance.
- Staging of peat and fill material in preparation of backfilling operations.
- Continuation of mat road chipping activities.
- At Location A6:
 - Excavation of hot spots along east and west banks of Talmadge Creek.
 - Dewatering of Talmadge creek by three vacuum trucks.

- Preparation for removal of contaminated soil using tandem dump trucks.
 - Removal of silt fences for excavation.
- At Location A5:
 - Final scrape in preparation of sampling and analysis.
 - Suspension of excavation and hauling on west side of Talmadge creek until soil screening is complete.
 - Disrepair of silt fence. Repairs needed to ensure the fence fulfills its function.

Division B

Enbridge reported the following:

- Continuing soil scraping at Location B2.5.
- Continuing deployment of boom, sorbent pads, and vacuum trucks to Location B2.7.
- Maintenance and replacement of booms at Locations B3, B4, and B5.
- Replacement of absorbent pads as needed at Location B3.

EPA observed the following:

- Presence of significant amounts of sheen between Locations B1.5 and B2 during night ops.
- Construction of new DECON pad near Locations B1 and B2 during night ops.
- Maintenance of booms and sheen skimming at Locations B1 and B2 during night ops.
- Maintenance of silt fence at Locations B2 and B3.
- Replacement of booms between Locations B2, B2.7 and B4.
- Removal of silt fence at Location B2.7.
- Presence of light sheen downstream of 15 ½ Mile Road.
- Inadequate containment of sheen downstream of 15 ½ Mile Road. Sheen was flowing through a break in the boom.
- Emphasis on grade restoration and stabilization along Talmadge Creek at Location B5.
- Soil scraping at Locations B4.5 and B4.7 in accordance with MDNRE work plans.
- Suspension of soil scraping at Locations B2 and B3.
- Completion of sampling, grade restoration, and stabilization in accordance with MDNRE guidance.
- Soil sampling at Locations B4.5 and B4.7 on the north bank of Talmadge Creek.

USCG observed the following:

- Vacuum extraction activities at Location B4.
- Boom maintenance at Location B4.
- Excavation of oiled vegetation at Location B5.

Division C

Enbridge reported the following:

- Shoreline vegetation removal at Locations C0, C0.5, C1, C1.5, C3, and C8.45.
- Preparation for Kemron demobilization from Location C0:
 - Discontinuation of boom maintenance.
 - DECON of equipment.

- Removal and DECON of boats from river.
- Preparation for demobilization of CHES and transition of labor to Environmental Restoration on September 4th.
- Deployment of 100 feet of snare boom at Location C1 upstream of Ceresco Dam.
- Collection and disposal of bags of debris at Locations C2, C3, C3.7, and C5.
- Transition of contractors at Location C3.2.
- Maintenance of boom at Locations C0.4 and C5.
- No operations at Locations C4, C4.1, and C6.

EPA observed the following:

- Arrival of new contractor in Division C. CMC continues demobilization activities.
- From MP2.25 to MP6 (Group 1):
 - Oversight of cleanup on Islands A, C, D, E, and F.
 - No activities on Island B.
 - Repositioning of manifold from Island F to Island E.
 - Suspension of work on Island E due to installation of heron trap by USFWS.
 - Subterranean flushing of muskrat burrow at Island A revealing large pockets of oil.
 - Air monitoring on Island A revealing a 1 ppm spike of VOCs
 - Collection of heavy sheen from center and east end of Island E using absorbent pads.
- From MP6.5 to MP10 (Group 2):
 - Discovery of significant amounts of oil at MP9.0.
 - Inspection of MP6.75 revealing two small pools of oil.
 - Cutting of logs violating SCAT guidelines at MP8.75.
- From MP10 to MP15 (Group 3 and 4):
 - Presence of light sheen from MP10.5 to MP11.25 and at MP13.0.
 - Spent boom in need of replacement between MP11.0 and MP11.25.
 - Presence of oil and sheen from MP14.25 to MP15.25 and Location C5.
 - Expulsion of oil from removal of oiled vegetation.
 - Presence of three oil soaked ducks at MP15. Wildlife division has been notified.
 - Continuation of shore cleanup, vegetation removal, and soil scraping activities.

USCG observed the following:

- Stacking of freshly cut logs larger than 6" in diameter at MP9.0.
- Trash and generally poor housekeeping at MP9.0.
- Presence of significant oil from MP8.5 to MP7.5.
- Presence of two pools oil and sheen at Location C1.
- Skimming of banks at Location C1.

Division D

Enbridge reported the following:

- Maintenance and construction of gabion baskets at Locations D1 and D3.
- Continuing consolidation of all sites to Location D2.
- No operations at Locations D0.5 or D2.5.

EPA observed the following:

- Operation and maintenance of both lines of gabion baskets.
- Consolidation of work force and collection points throughout Division D. All Division D activities will be conducted at Location D3.
- Maintenance of booms in all areas.
- Cleanup of oiled shoreline from MP16.5 to 16.75.

EPA reported the following:

- Discussion of cleanup actions for Location D5 at oxbow near the Custer Street Bridge. Conditions in flux due to high volume of recent precipitation and high wind velocities.

Division E

Enbridge reported the following:

- DECON at Location E0.5.
- Construction and maintenance of gabion baskets at Location E0.5.
- Shoreline cleaning at Location E1.
- Removal of roll off boxes from Location E2.
- Demobilization of EQM.
- No water operations were performed at Location E4.
- Demobilization of skimmers at Location E4.5.
- Sheen patrolling at Morrow Lake.
- Shoreline monitoring by four SCAT teams.

EPA observed the following:

- Consolidation of locations in to Locations E4 and E4.5.
- Demobilization and relocation of personnel and equipment.
- Construction and decontamination of gabion baskets.
- Reduction of DECON area at Location E0.5 from 20'x50' to 10'x12'.
- Discovery of submerged oil in Morrow Lake.

In response to the demobilization activities in Divisions D and E, EPA expressed the following concerns:

EPA Reported the following:

- Sheen on Morrow Lake may be hard to detect in high wind conditions.
- Removal of sheen will be difficult without skimmer boats.
- DECON station at Location E is inadequate for boom decontamination activities.

2.1.2. 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.

Technical Services Group

EPA reported the following:

- Observation of river conditions in the upper part of Division C.
- Evaluation of the effectiveness of booming strategies and the changes in oil and sheen post-weather event.
- Presence of heavy sheen and oil in the marsh at MP 4.5.
- Deployment of the sediment curtain in the pond above Ceresco Dam for containment.
- Preparation of resources for pumping recovery test for pond above Ceresco Dam.

Environmental Compliance and Oversight Branch

Enbridge reported the following:

- Continuation of seeding and mulching in Locations A1 to A4.
- Completion of soil scraping and documentation in Locations B2 and B5.
- Development of Restoration Plan.
- Completion of hot spot cleanup in Divisions A and B.
- Oversight of SCAT inspection teams.

EPA reported the following:

- 2 START teams continued oversight of CTEH air monitoring crews.

Transportation and Disposal took the following actions:

- Conducted QA/QC on data presented in the 0830 Command and General Staff Meeting.
- Conducted QA/QC on data presented on the EPA website for the Marshall Oil Spill Response.
- Assembled internal EPA solid and liquid projections for IC and OPS Chief
- Conducted ongoing manifest and contractor report auditing.
- Provided oversight on Frac Tank City operations.
- Oversight on Safety Kleen/Merit team bench test soil sample collection.
- Audited waste manifested soil volumes.

DECON Branch

Enbridge reported the following:

- Continuing construction of central DECON area in Location C0.5 is 25% complete. Completion is anticipated by 9/9/10.
- Establishment of new central cleaning area for large equipment in Division A. Completion is anticipated by 9/5/10.

EPA reported the following:

- Construction of central decontamination location continued at Location C0.5.
- Cleaning of frac tanks at Frac Tank City.
- Verification of waste tracking and disposal.

Monitoring Branch

Primary responsibility for sampling air sampling activities was turned over to Enbridge personnel on 08/28/10.

Enbridge reported the following:

- Focused air sampling programs are continuing around the Baker Estates trailer park, Ceresco Dam, and the source area.
- Ongoing real time monitoring for benzene and VOC's is continuing.
- Continuation of air sampling program to collect 24-hour summa mini-can samples, grab samples, and passive dosimeter samples in addition to the real-time air monitoring samples.
- Oversight of Enbridge sampling crew in Division C and E. One split sample was collected at Location MP-6.
- Ongoing oversight and deployment of SCAT teams.
- Collection of samples as indicated in Table 1:

Table 1 - Samples Collected as of 9/3/10

Sample Type	Number collected
Surface Water	19
Vertical Water Column Samples	0
Private Well Samples	0
Sediment Samples	3
Sheen Samples	0
Other	0
Soil Samples	0

EPA reported the following actions or observations:

- Meetings are ongoing to advise Enbridge on laboratory start up, methodologies, and required detection limits.
- Demobilization of EPA mobile air laboratory.
- Took duplicate air samples at 28 locations with no benzene or other air contaminants detected.
- Collection of samples as indicated in Table 2.

Table 2 - Samples Documented in SCRIBE as of 9/3/10

Media	Sample Type	Number collected
Air	Summa Canister	0
Air	Tedlar Bags	0
Air	Monitoring Samples	29
Surface Water	Grab	0
Sediment	Grab	0

Six SCAT teams reported the following:

- Collection of SCAT data in Division E.

Two Submerged Oil Task Force reported the following activities:

- Collection of 4 quantitative core samples in vicinity of Ceresco Dam.
- Collection of 8 qualitative core samples between MP9.5 and MP10.5.
- Erection of sediment curtain along south bank upstream of Ceresco Dam.
- Poling transects from approximately 11 locations in Division C.

Recovery/removal strategy test designs were established for Priority 1 and 2 areas at north and south banks at Ceresco Dam.

Oil recovery and Cleanup (East and West Branches)

The Overbank group reported the following observations:

- Absence of oiled vegetation between MP6 and MP9.25.
- Continuation of island clearing near MP2.25

Wildlife Environmental Damage Assessment Branch

USFWS reported the following:

- Development of business card sized handout with hotline number for workers.
- Providing technical assistance to EPA and Enbridge through the Science Team.
- Inquiry of SCAT pertaining to the effectiveness of soil turning with pitchforks.
- Discussion of methods of erosion measurement.
- Review of water quality data.
- Evaluation of shoreline currently implemented and potential shoreline cleaning, fertilizing and controlled burning techniques.
- Advising Situation unit and Operations of missing wildlife deterrence fencing that may have been removed by Operations.
- Publication of FAQ for goose hunters
- Preparation for fish survey for next Wednesday that will require boat traffic closure in Division C for several hours.

- Release of over 38 turtles, two great blue herons, and two snakes.
- Completion of vegetative and floodplain survey.
- Confirmation of reports of oiled ducks near MP15.
- Capture of oiled heron that had been feeding near the Ceresco Dam.

As of September 2, 2010 at 0700, the wildlife center reported 284 animals in captivity and 579 released to date.

Air Ops Branch

Since August 23, 2010, both the EPA START Situation Unit FOB 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.

Enbridge reported observing the following during two over flights:

- Changes in Sheen:
 - Presence of sheen at Locations A5, A6, B3, and B5 but in reduced quantities.
 - Minor sheen at Location C0 and C1.
 - Containment of sheen around islands in Division C.
 - Continued presence of sheen in pond upstream of Ceresco Dam.
 - Absence of sheen at confluence of Kalamazoo River and Battle Creek River, and at Morrow Lake.
 - Presence of minor intermittent sheen between Locations C0 and C1, at MP26, and Morrow Lake delta.
 - Effective containment of sheen around islands in Division C and at the oxbow at Location D21.5.
 - Containment of sheen by booms appeared effective in all areas.
- Operational Observations:
 - Standing water at seeded source area.
 - Completion of bladder installation at Location B2 to allow clean water to bypass Division Road Bridge and culvert.
 - Backfilling and Scraping in portions of Division B.
 - Stabilization and Staging of soils in Division B.
 - Scraping of soils at Locations B4.7 and B5.
 - Deployment of absorbent pads downstream of Location B5.
 - Replacement and maintenance of booms around Ceresco Dam.
 - Construction of DECON/roll off storage area at Location C0.5.
 - Road to A drive continues to be improved to allow heavy truck traffic.
 - Placement of gravel and geotextile matting in roll off box staging area.
 - Cleanup of oxbow area at Location D21.5.
 - Boat patrolling of Morrow Lake for sheen.
 - No sediment sampling events.

EPA observed the following during one over flight:

- Changes in sheen:

- Presence of sheen along the shorelines of Talmadge Creek through Locations A5 and A6 and in ponds adjacent to Talmadge Creek west of Interstate 69.
- Presence of sheen in Division B, but less than was present yesterday.
- Significantly diminished presence of sheen along the islands above Ceresco Dam and downstream near Locations C5 and C6.
- Increasing accumulation of sheen at Location E0.5.
- Presence of sheen at a pool north of Talmadge Creek where scraping operations were being conducted. Additional sheen noted immediately down stream. Less sheen was visible than yesterday.
- Absence of sheen coming off island upstream of Ceresco Dam.
- Presence of some sheen along the shorelines of the peninsula upstream of Ceresco Dam, but no sheen was seen going over the dam.
- Observed heavy sheen in the oxbow area at mile 21.5 (D4.25) just west of Custer Road. Sheen was seen coming off the support piers of the bridge at Custer Drive. Absorbent boom were present through the oxbow.
- Observed a patch of sheen along the northern shoreline near E-0.5 (MP26). Accumulation of sheen at this location has increased over the last 2-3 days.
- Operational Observations:
 - The ground through all of Division A to Talmadge Creek is covered with seed and hay/straw. Some standing water was observed on the ground cover in Locations A1 through Location A4.
 - Observed soil staging areas, decon area and frac tank city. Five soil cells in the eastern staging area were covered with plastic. One cell in the western staging area was covered with plastic, and the other three cells in the western area were mostly empty. Active decontamination of several frac. Tanks was observed at the south end of frac tank city, and construction of the scaffolding next to the decon area.
 - Observed confluence of Talmadge Creek with Kalamazoo River (B5). Booming operations appeared similar to yesterday.
 - Conditions at the peninsula upstream from Ceresco Dam and at the dam were similar to yesterday.

2.1.3. Progress Metrics

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

Boom Report

Table 3 - Boom Report (9/3/101900)

Number of Locations	25*
Boom Deployed (feet)	142,592

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

* Number of locations reduced from 36.

Soil and Debris Waste Tracking

Table 4 - Soil and Debris Waste Tracking (9/3/10)

Waste Stream*	Quantity Shipped (yd3)	Cumulative Quantity Shipped (yd3)
Haz Soil ^a	0	15,369
Non Haz Soil ^b	1,829	12,309
Haz Debris ^c	0	12,075
Non Haz Debris ^c	79	540

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

- a. Haz (Benzene)-impacted soil is being sent to EnviroSafe (Oregon, OH).
- b. Non Haz soil is being sent to Westside Recycling (Three Rivers, MI) and EQ/Republic (Marshall, MI).
- c. 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 and Republic (Marshall, 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.

Table 5 –Oil water collected by location (9/2/100700)

Location	Cumulative Total Collected (gallons)
Division A	4,750,240
Division B	3,317,075
Division C	786,350
Division D	117,825
Division E	54,450
Other Locations*	161,800
TOTAL	9,187,740

* Includes Frac, DECON, and Wildlife Center.

Table 6 - Oil water Separation (9/2/100000)

Oil-Water Separation at Tank 1605, Enbridge Facility in Griffith, IN Facility (gallons)	
Oil	766,000
Other Material	1,513,000
TOTAL	2,279,000

Table 7 – Liquid Shipped Off-site (9/2/10 0000)

Oil/Water leaving Site	Destination	Daily Quantity Shipped (Gallons)	Cumulative Quantity Shipped (Gallons)
Haz Water	Dynecol, Detroit, MI	19,102	2,003,562
Treated Non Haz Water *	Dynecol, Detroit, MI	0	134,200
Treated Non Haz Water *	Battle Creek POTW	0	1,968,700
Treated Non Haz Water *	Liquid Industrial Waste Services, Holland, MI	0	332,700
Treated Non Haz Water	Plummer, Kentwood, MI	127,800	1,458,300
Oil/Water	Tank 1605, Enbridge Facility, Griffith, IN	13,000	2,279,000
Haz Water	Safety Kleen ^a	550	550
Totals		160,452	8,177,012

* Treated Non Haz Water no longer sent to this location.

a. New Age lab water and methanol mix generated by mobile laboratory.

Table 8 - Oil/Water Volume Summary (Gallons)

Oil/Water Collected ^a	9,187,740
Oil/Water Shipped Off-site ^b	8,008,060
OIL/WATER REMAINING ON-SITE	1,370,227

a. As of 9/3/10 0700

b. As of 9/2/10

2.2. Planning Section

The Data Management Unit reported the following:

- Importation and validation of data into Scribe.
- Generation of Daily maps by GIS.

The DMU continued processing surface water sampling data, importing preliminary and validated analytical results into SCRIBE. EPA GIS received post-spill imagery from Enbridge, and is evaluating it for use on future map request.

Situation Unit FOB observed the following:

- At Division A
 - Straw mulch is distributed evenly across the surface of fill in area of pipeline break. Several sorbent pads were found in an isolated area of the straw mulch near Location A2.
 - Topsoil is stockpiled and separated from surrounding land by silt fence.

- Presence of slight sheen in quiescent areas of Talmadge creek. Areas with regular flow have no visible signs of sheen.
- Deposits of sheen on un-vegetated stream bank after recent rains.
- Erosion of creek banks in several locations.
- Presence of sheen in puddles and small channels along Talmadge Creek varying in intensity from slight to heavy.
- Silt fence and sorbent booms are in place along both sides of Talmadge Creek. Several areas of silt fence need maintenance.
- Scraping and scooping are evident in areas of Talmadge Creek bank in Locations A5 and A6.
- Water sleeve is conveying Talmadge Creek flow through Locations A5 and A6.
- Pumping operations at Division A6 are skimming product and diverting water from outside the water sleeve area to a bermed-off containment pool.
- At Division B5
 - Removal of oily sediment by several methods:
 - Shoveling of sediment into vacuum hose.
 - “Long-stick” excavator attached to vacuum truck.
 - Excavator.
 - Collection of air samples from excavator bucket.
 - Removal of bladder dam has allowed Talmadge Creek to flow without diversion.
 - Presence of oily sheen on riverbank.
 - Effective containment of light sheen within boomed area of the creek where sediment clean-up is occurring. Sheen is generated from an incoming tributary.
 - Replacement of flexible hose with more permanent metal piping along left descending bank, presumably for future creek diversion.
 - Absence of sorbents pads and booms upstream of the culvert dam at Location B3.
 - Deployment of sorbent booms and snares at location of between excavation operations at culvert dam and Route 69 underpass.
 - Expulsion of sheen from below mat roads at various locations.
 - No backfilling at this location.

2.2.1. Anticipated Activities for Next Reporting Period

In the next operational period, and bank stabilization in Division B as well as performing the same or similar activities as in the previous operational period, with a focus on activities in Division C.

2.2.2. Issues

Calhoun County public health reported the following:

- A change of the draft water sampling parameters was not available for discussion today.
- The final draft letter addressing health concerns at the Play Care Learning Center is being completed.
- Indoor air testing for Baker Estates residents will be conducted on September 8, 2010 and September 9, 2010 by EPA and Calhoun County Public Health Department.

2.3. Logistics Section

Logistics staff continues to serve the needs for the communications technology and supplies at the ICP.

2.4. Safety Officer

Enbridge reported the following:

- Reiteration of the need to ensure all employees are receiving and understanding the instructions given to them.
- Emphasis on adhering to decontamination procedures for personnel, equipment, and tools is a critical component to managing the health and safety of all workers.
- Emphasis on being aware of symptoms of heat stress. Focused on continuously monitoring signs and symptoms of heat injuries and planning ahead to prevent them.
- Treatment of two workers on site for exposure to poison ivy.

EPA reported the following actions:

- Little activity was observed in Locations C10.5 to C12 while on river tour of this site.
- The four workers in Division C that were hospitalized because of inhalation exposure yesterday were examined and released. No treatment was given.
- Enbridge conducted an assessment at Location C1.5 and air, soil and sediment samples were taken to determine what source workers were exposed to yesterday.

2.5. Liaison Officer

The Liaison Officer reported the following actions:

- No report filed.

2.6. Finance Section

The current NPFC issued ceiling is \$16 million. Approximately 86.2% of the ceiling has been spent through September 3, 2010, with a burn rate of \$222,108 per day. These cost summaries reflect only EPA-funded expenditures for the incident.

Table 9 - FPN E10527 - Enbridge Pipeline Oil Spill (9/01/10)

ERRS Contractors		Est. Expended	Est Burn Rate (Lastest Daily)
EQM (EPS50802)	T057	\$1,251,054	\$0
	T060	215,490	1,600
LATA (EPS50804)		1,451,396	0
ER LLC (EPS50905)		723,669	0
ERRS Contractors		\$3,641,6098	\$1,600
START Contractor			
WESTON (EPS50604)		4,489,679	82,754
Response Contractor Sub-Totals		\$8,131,285	\$84,354
EPA Funded Costs:			
Total EPA Costs		3,104,024	81,200
Pollution Removal Funding			
US FWS		276,120	2,500
Total Other Agencies		\$1,018,832	\$26,424
Sub-Totals		\$12,254,141	\$191,978
Indirect Cost (14.15%)		1,733,961	27,165
Total Est. Oil Spill Cost		\$13,988,102	\$219,143

2.7. Information Officer

The Public Information Office reported the following activities:

- Provided a press statement to one media outlet.
- Received one resident inquiry from the website.

The PIO staff operated the media inquiry line and performed media monitoring.

Media Inquiry Line (877-440-7157)

Calls received during reporting period: 2

Enbridge reported the following call volume and community center visits:

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

Calls received during reporting period: 52

Community Center Visits: 24

Visits by location during reporting period:

Battle Creek	13
Marshall	11

Enbridge reported that it received 6 inquiries from its www.response.enbridgeUS.com website bringing the total to 549 comments.

2.8. Response Actions to Date

Response Actions to date may be found in Situation Reports 1 through 39.

3. Participating Entities

3.1. Unified Command

U.S. EPA	Calhoun County Public Health
MDNRE	Department
Michigan State Police Emergency Management Division	Calhoun County Emergency Management
City of Battle Creek	Kalamazoo County Sheriff
Cooperating and Assisting Agencies	Enbridge (Responsible Party)

3.2. Cooperating and Assisting Agencies

ATSDR	Marshall Police Department
Calhoun Conservation District	Marshall Township Government and Fire
Calhoun County Commission	Department
City of Kalamazoo	Michigan Department of Agriculture
City of Marshall	MDCH
Emmett Township	NOAA
Fredonia Township	Oakland County HAZMAT/RRTN
Kalamazoo County Office of Emergency Management	PHMSA
Marshall Area Firefighters Ambulance Authority	USCG
	U.S. Department of the Interior/USGS
	USFW

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

Table 10. Personnel On Site 9/3/10

Agency/Entity	Numbers Reported
EPA	42
START	38
Calhoun County Public Health Dept. (CCPH)	4
Calhoun County (CC) Sheriff	6
City of Battle Creek	3
Kalamazoo Sheriff	2
MDNRE	9
Michigan State Police (MSP)	1
NOAA - National Weather Service	2
NOAA- NRDA	2
USCG	8
USFWS	8
USFWS Contractors	2
Enbridge	14
Enbridge Contractors	1,428
Total	1,569

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
FOB	Field Observer
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
Ppbv	Parts Per Billion Volume
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
CTEH	Center for Toxicology and Environmental Health
EQM	Environmental Quality Management

6. 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>.

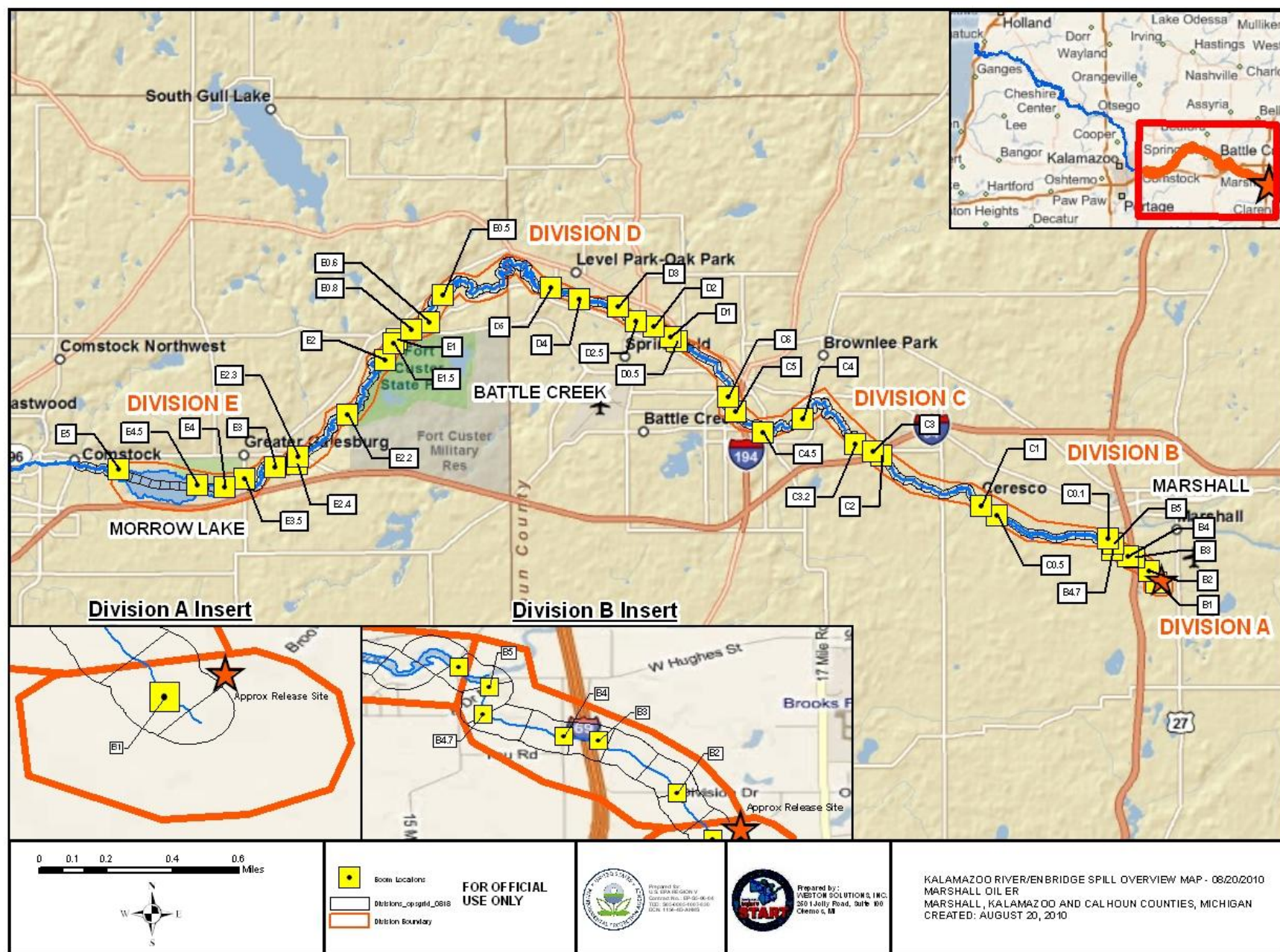
6.2. Reporting Schedule

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

7. 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 (US EPA) / Greg Danneffel (MDNRE) /
Durk Dunham (CCEM) / Paul Makoski (CCPHD) / Lt. Barry Reber (Michigan State Police)
Lt. Paul Baker (Kalamazoo Cty Sheriff's Office)
Mike McKenzie (City of Battle Creek) / Leon Zupan (Enbridge)

LIAISON OFFICER

Catherine Garypie (US EPA)
Angela Risdon (Enbridge)

SAFETY OFFICER

Felicia Fred (US EPA)
Brian Kovak (US EPA)
Melissa Linden (US EPA)
TJ Waldo (START EPA)
Sean Evans (Enbridge)

INFORMATION OFFICER

Jim Murphy (US EPA)
Cheryl Allen (US EPA)
Kevin O'Connor (Enbridge)
Terri Larson (Enbridge)
Kelsey Myhre (Enbridge)
Heather Keenan (Enbridge)

OPERATIONS SECTION

Brian Kelly (U.S. EPA), Chief
Rich Adams (Enbridge), Chief
Theresa Holz (U.S. EPA), Deputy
Peter Taylor (Enbridge), Deputy
Mark Ploen
(O'Brien's / Enbridge), Deputy

(See Ops Chart)

PLANNING SECTION

Craig Thomas (US EPA), Chief
Bill Weber (O'Brien's/Enbridge), Chief
Scott McEachern (Enbridge), Deputy
Gary Gregory (O'Brien's/Enbridge), Deputy

(See Page 2)

LOGISTICS SECTION

George Hamper (US EPA)
Chris Moore (Enbridge)

SUPPLY MANAGER

Jeff Borseth (US EPA)

ORDERING MANAGER

Jill Preston (Enbridge)
Nathan Graen (Enbridge)

FACIL

Greg Dearden
(Enbridge)

SECURITY

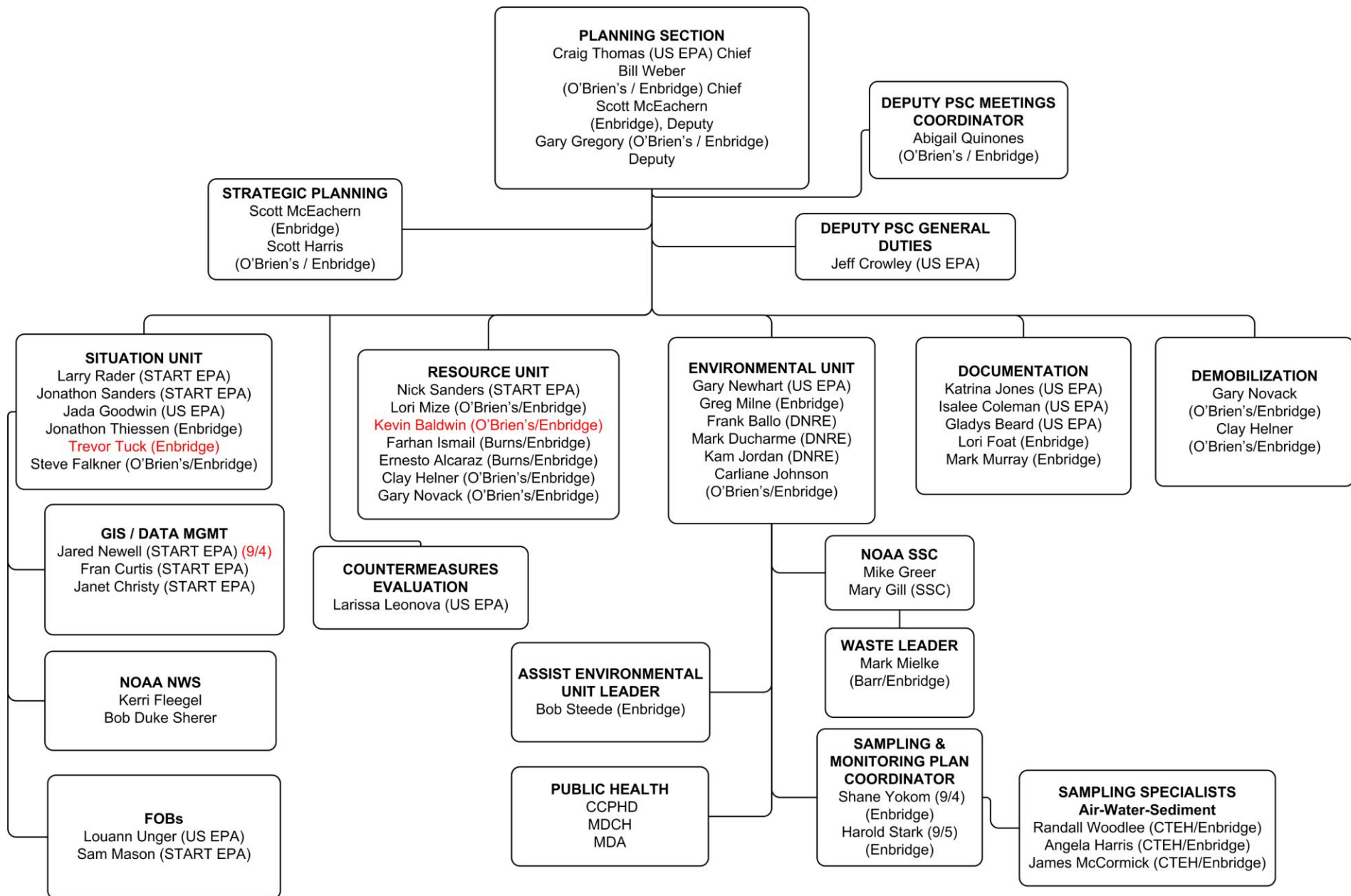
Stan Shook
(Enbridge)

FINANCE SECTION

Mark Maki (Enbridge)

COMMS UNIT

Paul Zanter (US EPA)
Kerrence Kelly (US EPA) (9/4)



Operations

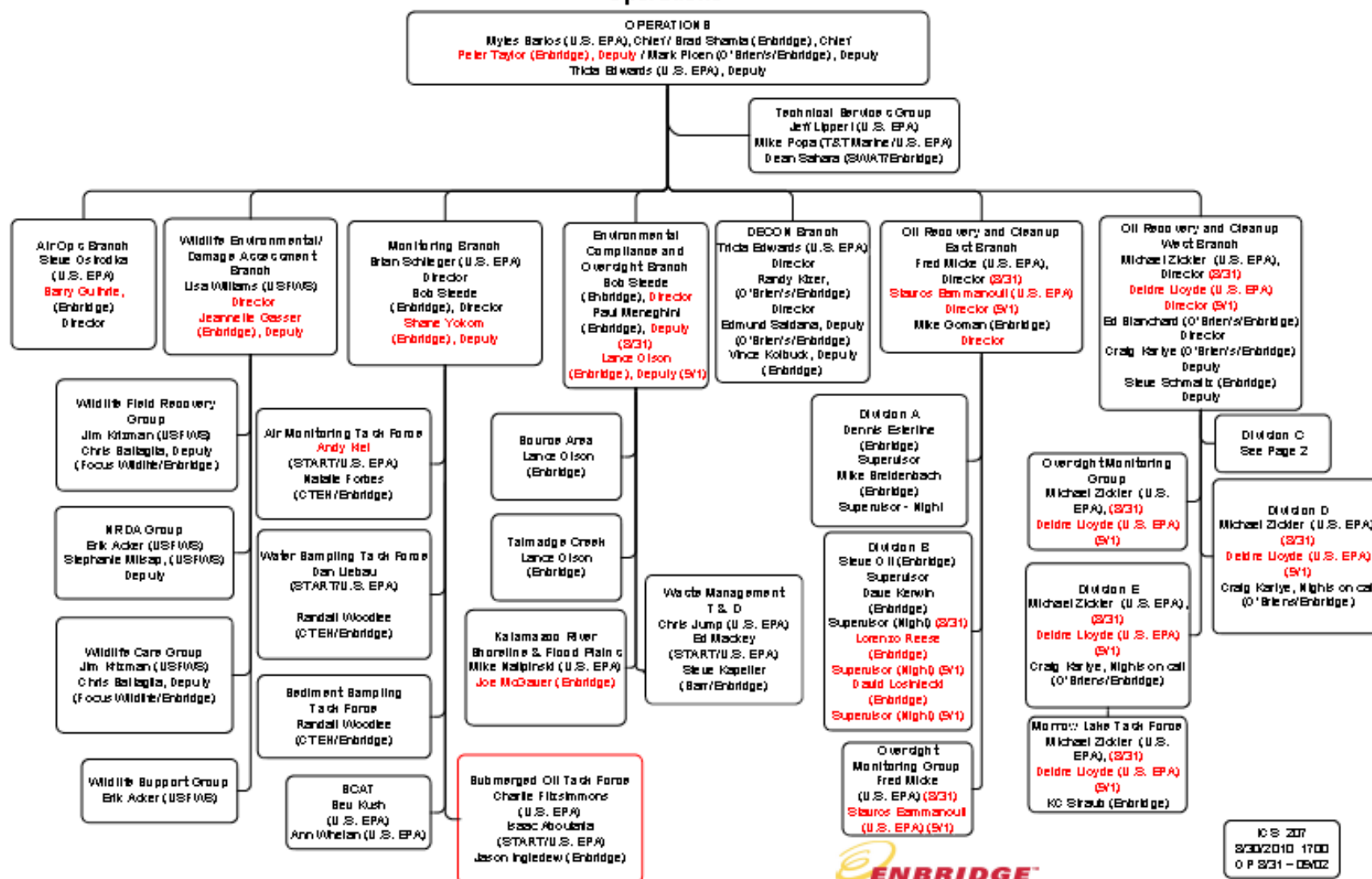


Figure 3 Operations

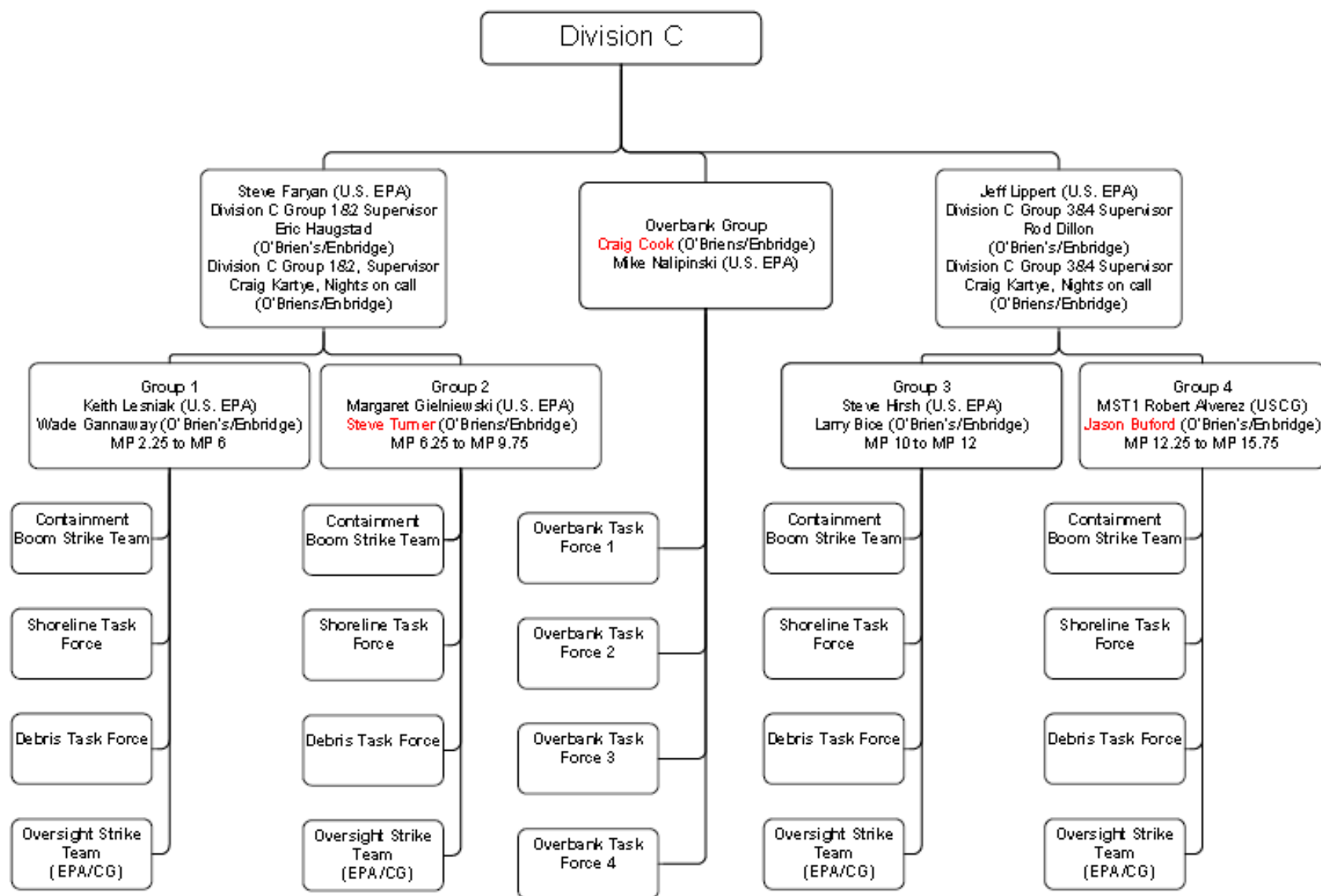


Figure 4 Division C