ATTACHMENT 1 – ***ENBRIDGE RESPONSE PLAN DOWNSTREAM IMPACT AREA***

Enbridge Line 6B MP 608 Pipeline Release

Marshall, Michigan

Response Plan for Downstream Impacted Areas

August 2, 2010

(Revised August 17, 2010 per U.S. EPA August 17, 2010 letter)

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1.0 Site History

The Enbridge Energy, Limited Partnership (Company) reported a release of crude oil from its petroleum pipeline Line 6B in the vicinity of Marshall, Michigan (Figure 1) on July 26, 2010. Two main areas have been impacted by this release. The Source Area is defined as a lowland area with marshy terrain located approximately 0.4-mile west of US-227 (17 Mile Road), and approximately 0.2 mile south of Division Drive, plus Talmadge Creek and all affected navigable waterways and their shorelines/adjacent up to the confluence of Talmadge Creek with the Kalamazoo River (the "Source Area"). The Downstream Impacted Areas include downstream of the Source Area. Specifically, this includes the Kalamazoo River downstream of the confluence of Talmadge Creek with the Kalamazoo River and all subsequent downstream affected navigable waterways and their shorelines/adjacent affected areas. This work plan titled "Response Plan for Downstream Impacted Areas" (RPDIA) will address the bank and in-river areas, and impacted wetlands, floodplain areas, and marshes (the "Downstream Impacted Areas") in accordance with recommendations made for each individual area by the Shoreline Cleanup Assessment Technique (SCAT) Team. A separate work plan titled the "Source Area Response Plan" (SAR) will address the Source Area.

2.0 Site Description and Location

The Company's pipeline release site is located just west of pipeline mile post 608 in Marshall, Calhoun County, Michigan, (North ½ Section 2, T3S, R6W, Latitude: 42.2395273 Longitude: -84.9662018) in an undeveloped area, south of town. Figure 1 shows the location of the site. The release entered Talmadge Creek and then the Kalamazoo River. These waterways are considered to be navigable waters. Currently, approximately 30 miles of the Kalamazoo River may have been impacted. To date the impacted areas are described as:

- **Division A** - the Spill Release Area (to the constructed Flume where the release entered Talmadge Creek);
- **Division B** - Talmadge Creek from the Flume site to the confluence with the Kalamazoo River);
- **Division C** - The confluence of the Talmadge Creek and the Kalamazoo River to the Angell Street Bridge;
- **Division D** - Angell Street to Kalamazoo County line; and
- **Division E** - Kalamazoo County Line to Morrow Lake Dam.

Figure 2 shows the site division designations A through E. The Source Area is comprised of an approximate 5-acre parcel adjacent to the pipeline release location (Spill Release Area) and the portion of the Talmadge Creek extending from the release site to the confluence with the Kalamazoo river (the Creek) (Figures 3 and 4). The majority of the Spill Release Area is within a wetland between the release site and Talmadge Creek. Most of the surrounding area can be characterized as rural, including undeveloped and agricultural areas. Vegetation in the source area consists of herbaceous emergent wetland plants in low lying areas, as well as brush and trees in upland areas.

This RPDIA Plan addresses the downstream area from the Source Area, which encompasses Divisions C through E (Figures 5 through 7).

3.0 Emergency Response Actions Completed To Date

As of the date of this report, the following key response actions have occurred:

- **Plans:** The Company has prepared and submitted plans for review and comment to be used to control the work and reporting.
- **Security:** Signage at crossings and public notice has been provided to alert the public to the hazards that may be associated with the spill.
- **Oil and Water Containment and Recovery:** Oil containment and recovery operations using up to 1,000 Company and contractor staff, 70,000 feet of booms, 90,000 feet of absorbents, and supporting vacuum trucks along the Kalamazoo River. The Planning Section tracks the staff, equipment, and progress on a spreadsheet that is updated daily (See Figures 5 through 7 for boom location and other containment controls).
- **Initial Receptor Survey:** An initial receptor survey was implemented and will be updated during post-response activities effectively identify potential migration pathways and potential receptors along the Kalamazoo River. The receptor survey is conducted to identify the presence and location of surface waters, water wells, and surface water intakes which could be impacted by the crude oil release.
- **Environmental Sampling and Exposure Reduction:** The Company has performed preliminary sampling of environmental media and potable wells as requested by concerned citizens in order to be protective of human health. Concerned citizens have been provided housing outside of the immediate impacted area.
- **Federal and State Approvals:** The Company has coordinated efforts with all Federal and State level environmental stakeholders identified at the site including:
    - U.S. EPA, U.S. Fish and Wildlife Service (USFWS)
    - Michigan Department of Natural Resources and Environment (MDNRE)
    - U.S. Coast Guard
    - Michigan Department of Agriculture (MDA)
    - Michigan Department of Community Health (MDCH)
    - Calhoun County Public Health Department (CCPHD)
    - Kalamazoo County Health and Community Services Department (KCHCSD)

The Company is obtaining environmental permits for the short-term oil removal in parallel with ongoing response activities. Table 1 contains the permits/approvals obtained to date and submitted

permit applications. The permit expiration dates and conditions are being tracked to maintain compliance. New permits or permit extensions will be acquired as needed during the transition from response to future long-term response actions.

Adaptive Management: Throughout this plan there are various forward looking statements or content. As well, associated text may also indicate that specific details may need to be worked out with relevant agencies as work unfolds. It is understood that the overall Federal On-Scene Coordinator (FOSC) Structure will provide sufficient technical staff to facilitate supplementing or changing parts of the response plan and strategies as such situations arise, and will work with The Company to review and approve alterations.

3.1 Objectives, Endpoints & Metrics

The primary objective of this Response Plan for Downstream Impacted Areas (RPDIA) Plan is to remove and/or abate visible oil and or sheen that is either currently affecting navigable water ways and/or poses the threat of release of a visible oil or sheen discharge to navigable waterways. This objective will be accomplished by meeting the target endpoints for each shoreline type described below. The endpoints are based on visual field screening for the presence of materials capable of producing a release of oil or an oil sheen to navigable water. Visual screening does not include soil that exhibits a petroleum odor and/or organic headspace. These residual impacts will be addressed as part of the long-term assessment and remediation efforts for the site.

3.1.1 Riparian Zones and Stream Banks

1. Shorelines no longer release sheens that affect navigable waterways.
2. Oil no longer rubs off on contact.
3. Oil removal to the point where recovery/re-colonization can occur without causing more harm than leaving the oil in place. Heavy oil generally weathers to a dry coat within weeks.

3.1.2 Soil, Sand and Gravel

1. Oil is no longer visible on surface.
2. No oil layers in test pits dug by inspection teams.

3.1.3 Man-made structures

1. Structure no longer generates liquid oil or sheen.
2. Oil no longer rubs off on contact.

3.2 Response Methods Overview

The Company will develop and coordinate selection of actual response methods in consultation with the agencies and within the FOSC. The response methods will be implemented through a daily Incident Action Plan (IAP). The SCAT Team input will be the overarching mechanism to guide the selection process.

Aggressive response activity measures (versus leaving small amounts of oil which will degrade naturally over time) have the potential to cause greater long-term environmental harm and may delay, rather than accelerate, recovery of impacted shoreline habitats. Therefore, the Company will avoid the use of intrusive disturbance of the river banks unless absolutely necessary. The Company proposes intrusive disturbance of the river banks/beds, floodplains, and/or wetlands only when the potential for adverse affects from the oil poses a greater threat than intrusive removal techniques.

If invasive response activities are required to remove oil-impacted soils/sediments, vegetation and/or debris, best management practices will be employed to minimize adverse impacts to these and surrounding natural resources and/or sensitive habitats. These include:

- Use of low-pressure flushing conducted in such a manner which minimizes erosion and does not dislodge soil/sediment particles from unconsolidated banks leading to the possible incorporation of oil into stream or river sediments. Prevent pushing or mixing oil deeper into the sediment by not directing the stream of water directly into the oil; direct hoses to place stream of water above or behind the surface oil to create a sheet of water to re-mobilize and carry oil down the bank to a containment area for recovery.
- Minimizing the removal of clean soil underlying oiled surface layers being removed.
- Preventing trampling of wetland or upland vegetation by pedestrian or equipment traffic within unoiled areas adjacent to response activity sites.
- Avoiding pedestrian or equipment traffic on soft substrates where oil could be pushed deeper into the substrate.
- Minimizing the removal of clean vegetation when removing oiled vegetation.
- Restrict flushing in marshes from boats or on shore above the high water mark to minimize mixing oil into the sediments or mechanically damaging the marsh plants.

Please refer to Attachment B for further discussion of the Shoreline Cleanup Assessment Team (SCAT) Process and additional information on selecting and recommending response techniques.

4.0 Evaluation of Potential Impact Areas and Select Response Actions

Priority areas will be identified from the SCAT Assessment conducted on the Kalamazoo River (See Attachment B attached for a more detailed description). The SCAT Assessments are compiled and communicated by The Company to Operations to assist development of a daily IAP. Priority areas will be those areas where observed impacts are high and in close proximity to a receptor, or could have future impacts to downstream areas. Receptors may include people, plants, animals and other ecosystem components. Anticipated priority areas may include wetland areas adjacent to the river that contains oil that could become mobilized in the River under different conditions such as a heavy rain event resulting in high water levels. The United States Army Corp of Engineer's (USACE) concrete channel project requirements will be reviewed as possible priority areas.

The need for responses in these defined priority areas will then be determined by balancing response activities while minimizing impacts to other resources. The decision making process is outlined in the decision tree shown as Figures 8 and 9.

Michigan Department of Agriculture (MDA) will be notified within one week if access to a response area will occur through active farmland. Significant impacts from access will be assessed and forwarded to the landowner and the MDA for evaluation of potential long-term impacts to a land that would preclude continued enrollment of the land prior to its contract end.

4.1 Sediments

The presence of oil in the Kalamazoo River creates potential for sediment contamination through several possible mechanisms: direct contact with oil, flushing of oil from banks, and entrainment of sediment or other material, which alone or in combination with weathering processes, causes oil to no longer remain floating. Qualitative assessments will be conducted to characterize sediment oiling conditions by means of visual observations in the Kalamazoo River and Morrow Lake.

4.1.1 Kalamazoo River

Initially, survey locations will be established at depositional areas that are most heavily oiled, as these locations are most likely to contain oil, if present, based on fluvial geomorphic conditions. Transects across the river will be established in areas where heavy oil is observed on both banks. Along transects that span the width of the river, survey locations will be established every 10 to 15 feet.

At each survey location, a dibble or shovel blade will be used to agitate the surficial sediment and/or expose the subsurface sediments for inspection. The type (e.g., free oil, tarballs, sheen) and amount (e.g., percent cover within 3 feet of the survey location) of any observed oil will be documented along with the substrate type. Photographs and GPS coordinates will be taken at each survey location to show the extent of oiling.

If oil is found, the survey procedure will be repeated at additional upstream and downstream locations (not to exceed two locations/transects per river mile).

4.1.2 Morrow Lake

If oil in the sediments is observed in depositional areas at the upstream end of Morrow Lake, subsurface chain drags will be conducted along transects in the lake where deeper water levels are not expected to be conducive to agitation with shovels. Transects will be established perpendicular to the longitudinal axis at half-mile intervals starting at the eastern-most end of the lake.

The chain drag procedure consists of dragging a heavy steel chain and absorbent pompoms across the bottom of the lake along the established transects. The chain drag apparatus is attached to the boat by rope and consists of absorbent pompoms attached to a 10-foot-long steel chain. At each transect, the apparatus will be deployed and dragged the entire length of the transect. At the end of the transect, the apparatus will be retrieved and checked for presence of oil. If no oil is observed, the survey will continue at the next transect with new clean snare. If oil is observed, the transect will be re-surveyed with new clean snare and the apparatus will be retrieved at 500-foot intervals to inspect for the presence of oil.

Each time the chain drag apparatus is retrieved, pictures will be collected and observations will be recorded even if no oil is present. GPS coordinates will be collected and recorded at each retrieval location. If oil is observed (determined by smell and/or appearance), the oiling level (e.g., very light, light, moderate, and heavy) of individual snares will be assessed and recorded on field data sheets. Any oiled snare on the apparatus will be removed and replaced with new clean snares prior to redeployment.

5.0 Kalamazoo River Response and Recovery

The Kalamazoo River is an approximately 50-foot-wide waterbody. During the release, water elevations were high due to recent precipitation. As a result, oil was able to enter floodplain wetlands. Further river shoreline assessment is needed, specifically at locations were wetlands are present adjacent to the river. Wetland area assessments will be completed as part of the shoreline review. As noted earlier, the SCAT Process will guide assessment, prioritization and selection of response activity approaches and methodologies.

5.1 Goals and Objectives for the Kalamazoo River

- Remove remaining free oil.
- Effectively and efficiently remove residual oil on the banks and associated wetland and floodplain areas along the Kalamazoo River to levels that do not produce oil or an oil sheen to navigable waterways.

Conduct response actions in a manner that minimizes further impacts to natural resources and ecosystems by evaluating trade-offs and weighing the benefits of additional response actions against the environmental harm potentially caused by more aggressive techniques.

5.2 Controls to Limit Additional Impacts Downstream

- Maintain and monitor existing downstream control points throughout to protect downstream areas as necessary.
- Utilize localized or "short-term" boom installations to further restrict work areas.
- Minimize foot traffic through oiled areas on non-solid substrates (e.g., sand, gravel, mud, etc.) to reduce the likelihood that oil will be worked into the soil/sediment. Trampling of unoiled wetland vegetation reduces habitat value and may lead to shoreline erosion. Excessive foot traffic through oiled soft substrates potentially drives oil deeper in the sediment potentially increasing the need for future removal or remediation and lengthening the time required for recovery.

Baseline River Conditions: It is not expected that response activities on the Kalamazoo River will cause substantial alterations to baseline fluvial geomorphology of the river. Nonetheless, baseline conditions will be established via existing data as available on topographic conditions, flow channel characteristics, base flow and so on available via the County Commissioner or other local or state resources, as well as USGS or other sources. It will be supplemented as relevant with onsite data collection; for example, to the extent response activities move forward into fluvial deposits or

sediments (see Sediment section later in this report), localized survey data and other documentation will be collected to document baseline conditions. Regarding potential alterations to ecological habitats, baseline conditions are being evaluated and documented as part of the Natural Resource Damage Assessment (NRDA) process currently ongoing with the Trustees. This will include documentation of large woody debris, however, The Company and EPA also held discussions with MDNRE Fisheries staff on this particular issue and also committed to GPS photo documentation of such large woody debris (e.g., downfalls, etc.) prior to removal of oiled material.

The general response activities for the Kalamazoo River will consist of steps to remove free oil, followed by methods to address and remove oily vegetation on the bank, as well as oily debris, bank soils, and sediments in line with SCAT Team recommendations.

6.0 Treatment Recommendations

A quantitative monitoring plan will be developed separately to make judgments on whether natural recovery is occurring without unacceptable adverse effects and will be submitted to the FOSC for approval prior to execution of such as plan.

6.1 Response Methods

Attachment C provides a matrix of approved shoreline clean-up methods developed in conjunction with the U.S. EPA on August 10, 2010. It is expected these will evolve over time by the ongoing SCAT Process and continued agency consultation.

When necessary to access or cross areas of soft substrates, plywood sheets or other appropriate methods will be used to avoid compressing soils.

The outline below provides a brief overview of the anticipated methods of clean-up:

6.1.1 Free Oil Recovery

- Continue free oil recovery as necessary by one of the recommended methodologies identified (which may include pads, skimmers at control points, vac truck).

- Minimally scrape areas (if required) to remove remaining liquid or heavy deposits of crude oil and dispose of resulting material according to waste management plan.

- **Low pressure water wash**—The low pressure water wash will target oiled vegetation and shoreline. Absorbent boom will be used to provide secondary containment. As shoreline washing progresses, localized deployment of boom, sorbent booms and pads, as needed, will occur to contain and recover oil in the immediate area. Throughout all washing or flushing efforts, steps will be taken to avoid impact to un-oiled areas or vegetation. For example, washing will be performed in a manner to move oil down gradient to containment/collection points, not up into clean areas. Such procedures will be communicated and reinforced as part of a daily IAP.

- **Torch residual crude oil smear/stain**—Handheld propane torches will be used to remove crude oil smear and stain on vegetation and soils along shoreline areas. Use of this method will maintain plant root systems and will not result in any self-sustained fires. Prior to any

such burning, it will be approved by the IAP Process. No other thermal treatment of contamination is planned.

6.1.2 Manual Removal

Where practical, manual techniques will be used to remove oil from the streambanks and affected riparian areas. This may consist of shoveling, scraping, raking or digging oil and oil-impacted soils using hand tools. Oily material will be bagged immediately. Removal of clean underlying soils will be minimized. Efforts will be made to avoid destabilizing the streambanks, which could lead to further erosion. Manual removal also applies to removal of oily debris from the streambanks or within the stream channel. Workers will take care to avoid trampling non-oiled vegetation and walking on soft substrates, which has the potential to push oil farther down into the sediments. When necessary to access or cross areas of soft substrates, plywood sheets or other appropriate methods will be used to avoid compressing soils. Backfill of excavated areas will be with clean, weed-free top soil immediately following excavation around tree roots in the riparian zone as necessary to ensure tree survival.

6.1.3 Mechanical Removal

Mechanical removal of heavily oiled bank materials may be proposed, but would be coordinated within the SCAT Process and presented to the agency for approval.

6.1.4 Vegetation Removal

Oiled vegetation will be removed as outlined in Attachment C, which includes shrubs, tree branches and non-persistent grasses and forbs. The cuttings will be collected and disposed of according to Section 2.4 of the Waste Management Plan. Trees larger than 2-inch diameter at breast height (DBH) as outlined in Attachment C.

6.1.5 Debris Removal

Oiled debris will be removed as outlined in Attachment C from the river and banks and disposed of in accordance with Section 2.5 of the Waste Management Plan. To the extent that large woody debris is oiled, it is recognized such debris is an important component of the river habitat for a range of species. Removal of oiled large woody debris has been discussed with EPA and MDNRE, with concurrence that such debris will be inventoried via photo-documentation, and removed as necessary. This will allow assessment and implementation of habitat restoration efforts as needed, and coordinated as appropriate with NRDA processes.

6.1.6 Interim Response Oiled Wildlife Processing Protocol

During implementation of the previously described response activities, live oiled animals will be collected, cleaned, rehabilitated, and released. Oiled wildlife carcasses identified by response staff, regulatory staff, and the public will be called into The Company's Marshall Response 800 number (800.306.6837). A member of the Wildlife Response Facility (WRF) team will be dispatched to collect the carcass. The carcass will be photographed in place, and its location documented (to include either actual lat/long coordinates or coordinates from a nearby known landmark, if available). If, during the course of the response, the appropriate regulatory entity [USFWS (migratory birds) or MDNRE (other species)] has demobilized from the WRF, the collection staff will notify them of the discovery. A record regarding the disposition of wildlife carcasses will be maintained including disposition date, dispositions status, federal band number (if applicable), and intake number.

6.2 Resources and Equipment

The equipment and manpower is dependent on the SCAT Process results. Based on initial assessment, a base level of resources is as follows:

- Trained personnel as described in the earlier section entitled "Resources – Downstream Impacted Areas Section"
- Boats and related water equipment
- Rakes, shovels and other hand tools
- Booms and skimmers as appropriate
- Mechanical excavation equipment (as required)
- Absorbent pads and absorbent booms

7.0 Schedule

Various activities outlined in this work plan have been initiated and are being implemented. Subject to the complications created by weather or other forces outside of the control of the Company, the objectives outlined above will be completed by September 27, 2010. This work plan is being initiated and will be implemented in its entirety upon receiving EPA approval.

8.0 Response and Recovery

After SCAT Team Assessments are complete, and subsequent to mobilization to the site, the following preparatory activities will take place prior to the initiation of response methods:

- **Pre-removal Survey**: The removal contractor personnel will evaluate existing data from the area and familiarize themselves with current site conditions by conducting their own onsite survey of the site to acquire site-specific data.
- **Maintenance of Existing Boom and Skimmer Operations:** Areas to be rinsed will have an existing boom and skimmer system inspection to ensure that freed residual oil will be captured.

8.1 Stabilization and Re-vegetation

Interim restoration activities will occur along the shoreline and other non-aquatic areas of the Kalamazoo River. Restoration activities will include application of a vegetative cover designed to minimize erosion until long-term restoration can be completed. The vegetative cover will include native plant species and/or non-invasive temporary cover crops, such as rye, potentially applied as a hydro-mulch material. Long-term restoration will include, but not be limited to, consideration of the original controls of the site, use of the appropriate soil types, future erosion control, re-vegetation, etc. Long-term monitoring plans with performance criteria including: erosion control, establishment of vegetation, absence of invasive species, etc., will be included as part of the final site restoration plan. The Company recognizes that earth disturbance is subject to Michigan's Permit-by-Rule for construction stormwater; therefore, a detailed restoration plan will be prepared pursuant to Part 301.

8.2 Post Response Assessment

The effectiveness of the response methods will be assessed as the completion of areas progresses downstream. Areas still showing evidence of impacts will be re-assessed, and subsequent recommended response methods will be implemented by the Company. The effectiveness of the response method or methods implemented will be determined by the federal and state SCAT Team members. For those areas, if necessary, continuing to show signs of impact after recommended response methods have been implemented, further investigation, will include sampling and/or monitoring, will be conducted after appropriate site-specific sampling plans are developed by the Company and approved by the assigned MDNRE Project Manager in accordance with applicable MDNRE Part 201 guidelines.

In accordance with the decision tree outlined on Figures 2 and 3, the Company will avoid intrusive disturbance of the river banks unless absolutely necessary. The Company proposes intrusive disturbance of the river banks and beds, only if that SCAT Assessment and the response evaluation process indicate there will be an adverse affect that is more detrimental than intrusive remedial techniques. If additional remedial measures are necessary, such as excavation, appropriate mitigative measures will be employed.

8.3 Long-Term Remediation

Site restoration will be completed in accordance with the requirements of applicable permit requirements including a Joint Permit Application to the MDNRE and USACE for Part 303/301 and Part 31 activities will be sought for the proposed construction. (Application was submitted August 2, 2010.)

Clean-up of the oil spill will require wetland, stream, and floodplain permitting. Pursuant to Part 303 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), any project involving placing fill in a wetland, dredging or removing soil from a wetland, constructing, operating or maintaining use or development in a wetland, or draining surface water from a wetland requires a Part 303 permit from the MDNRE Land and Water Management Division. Part 301, Inland Lakes and Streams of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), involves any project concerning the natural resources and the public trust waters of Michigan's inland lakes and streams including activities related to dredging, filling, constructing or placing a structure on bottomlands, constructing or operating a marina, interfering with natural flow of water or connecting a ditch or canal to an inland lake or stream. The State of Michigan Floodplain Regulatory Authority, found in Part 31, Water Resources Protection, NREPA requires that a permit be obtained prior to any alteration or occupation of the 100-year floodplain of a river, stream or drain. The Floodplain Regulatory Authority deals with the floodplains of rivers, streams, or drains which have a drainage area that is two square miles or greater and requires a permit from the MDNRE for alterations within such floodplains.

A Joint Permit Application to the MDNRE and USACE for Part 303/301 and Part 31 activities will be sought for the proposed construction. In pursuing this permit we will demonstrate that they have taken all reasonable actions to avoid impacts to waters, minimize impacts that cannot be avoided, and provide compensatory mitigation for all remaining impacts. Restoration and proper seeding of impacted wetlands, streams, and floodplain will be conducted in accordance with these MDNRE regulations.

A wetland/stream/floodplain restoration plan will be implemented with the goal of restoring the wetland/stream/floodplain area to a condition as good as what previously existed, with a similar plant community and similar hydrologic regime, at the same finished grade as pre-existing conditions. Plantings will incorporate native plant species along with non-invasive temporary cover crops. Use straw mulch in level areas and mulch blankets for slopes will be used. The MDNRE may require monitoring of the restored wetland/steam/floodplain areas annually in the fall of each year for three years after the project is complete. For each monitoring visit, documentation will be taken of the establishing plant community, compared to seeding treatments, and an assessment of the results will be conducted. Any observed wildlife use of the area will be reported in addition to hydrology, and photos documentation of each area.

After river bank and sediment removal operations have been completed, the following river and bank restoration activities will be implemented in accordance with the approved wetland/stream/floodplain restoration plan in accordance with the Part 301/303 and Part 31 joint permit.

8.4 Post Response

If additional investigation/remedial action beyond those response methods recommended by the SCAT Team is warranted, any necessary site-specific action plan or work plan will be developed and submitted to U.S. EPA and MDNRE for review and approval.

If additional intrusive response is required, Company will work with the MDNRE and appropriate parties to determine location and frequency of soil and/or ground water samples to be collected and analyzed. The samples will be collected and analyzed according to the Sampling and Analysis Plan.

9.0 Contingency Planning

The current controls to limit downstream impacts consist of containment points located along the Kalamazoo River from Talmadge creek downstream to Morrow Lake. The containment points consist of deflection, collection and absorbent boom. The containment points are monitored daily for boom integrity, performance and absorbent saturation. Contingency operations at each containment point are initiated by the Operations Lead. Contingency resources are mobilized as needed and may consist of crew and or equipment to handle the contingency and inspect potential upstream source locations if warranted.

The Company will maintain a program of inspection and mitigation to control and capture any visible oil that threatens navigable waterways after the initial oil removal actions are complete. In addition to observations by the project team members involved in sampling and other surveys and the public, the initial inspections will comprise weekly trips by boat by a SCAT Team who will assess the conditions along the River. If river conditions preclude the use of a boat, the SCAT Team will complete assessments from river access points. The SCAT Team inspection frequency will be reduced by mutual agreement with the FOSC. Booms will remain in the River until agreed-upon endpoints have been reached and FOSC approval for their removal is obtained. It is considered that booms at primary control points will remain in place after the initial removal as a precautionary measure for as long as the weather permits in 2010. In the event visible oil re-emerges, booms and/or absorbents will be re-deployed and maintained as needed until the endpoint is again attained.

10.0 Plan Modifications

If the Company wishes to propose an action, revision or change that is not identified in this Plan, the Company will request approval of the action, revision or change from the FOSC. To initiate the process, a written request will be submitted by the Company to the FOSC outlining the proposed action, revision or change to be utilized and the benefits to be derived from its execution. FOSC will then approve or disapprove in writing or discuss potential alternatives.

References

ASTM F2534-06, Standard Guide for Visually Estimating Oil Spill Thickness on Water.

Guidebook of Best Management Practices for Michigan Watersheds, Reprinted October, 1998, Michigan Department of Environmental Quality, Surface Water Quality Division.

Inland Oil Spills, Options for Minimizing Environmental Impacts of Freshwater Spill Response, National Oceanic and Atmospheric Administration, Hazardous Materials Response and Assessment Division; American Petroleum Institute; June 1994.

Michael, J. & Benggio, B.; Guidelines for Selecting Appropriate Cleanup Endpoints at Oil Spills.

Shoreline Assessment Manual, Third Edition, Office of Response and Restoration, Hazardous Materials Response Division, National Ocean Service, National Oceanic and Atmospheric Administration, HAZMAT Report No. 2000-1, August 2000.

Tables

Table 1

Summary of Agency, Workplans, Permits and Approvals

U.S. EPA Work Plans

Work Plan	Dated	Status
Pipeline Repair	7/29/10	Approved
Oil Recovery and Containment	8/2/10; rev. 8/5/10	Approved
Health and Safety Plan	8/4/10	Approved
Waste Treatment, Transportation, and Disposal Supplement #1 – Frac Tank Secondary Containment Design Supplement #2 – Frac Tank Secondary Containment Plan	8/2/10; rev. 8/8/10 8/6/10 8/11/10	Approved Pending Pending
Quality Assurance Project Plan	8/2/10	Pending
Sampling and Analysis	8/2/10	Pending
Source Area Remediation	8/2/10	Pending
Downstream Remediation	8/2/10	Pending

Additional Permits/Approvals

Permit/Approval	Dated	Status
DNRE/USACE Joint Permit Application	8/2/10	Pending
Dewatering Discharge Work Plan (General Permit MIG080000)	8/4/10	Approved
Battle Creek POTW – Special Discharge Authorization	8/11/10	POTW - Approved EPA - Pending
Wetland Impacts – Temporary Alterations (General Permit)	NA	In progress

Figures

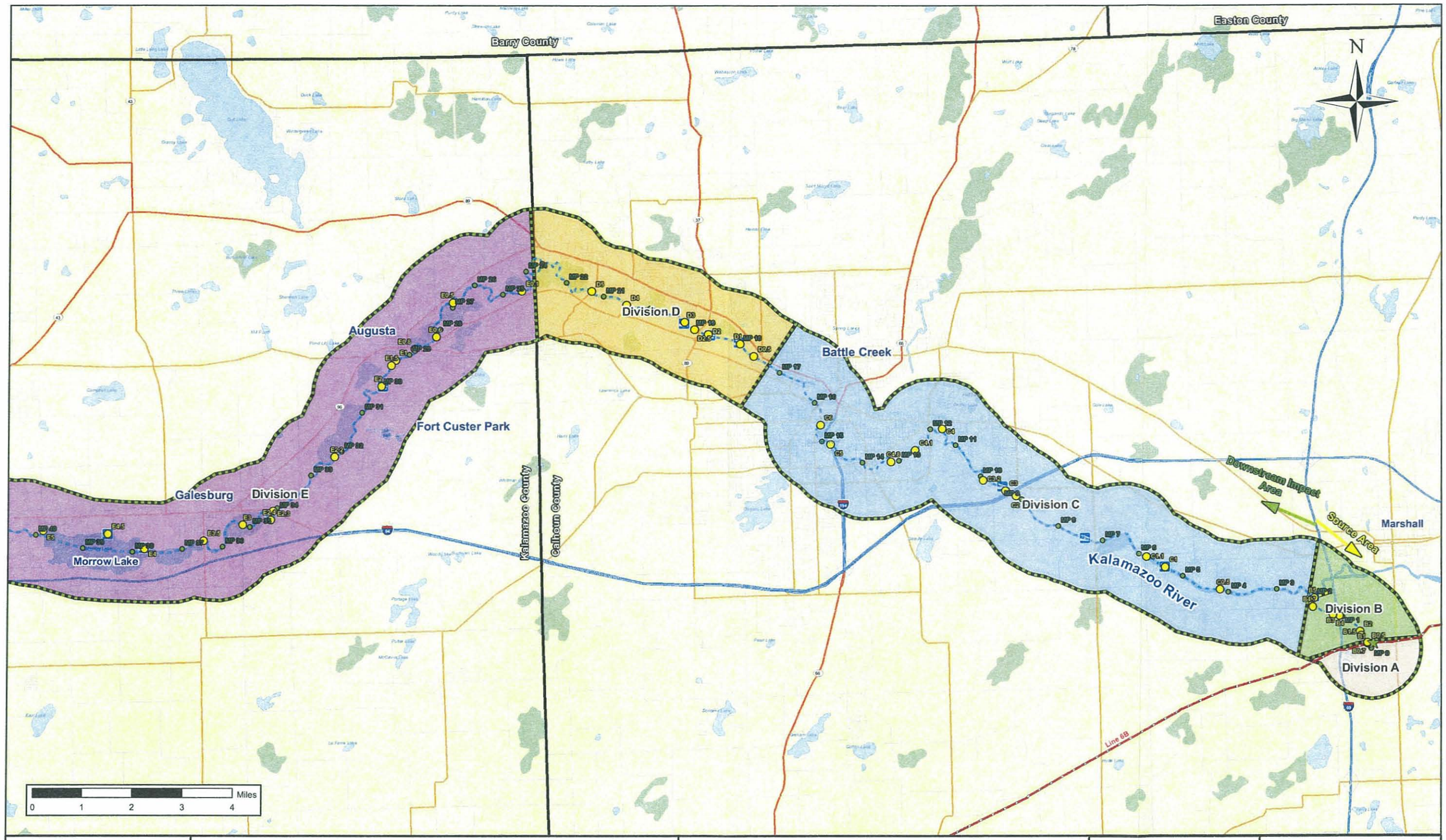
ENBRIDGE™

0 50 100 150 200 Miles

Enbridge Energy, Limited Partnership
Enbridge Line 6B MP 608 - Marshall, MI
Downstream Impact Area Response Plan
Figure 1: Site Location

DATE ISSUED:	Aug 11, 2010
DATE REVISED:	
SCALE:	1:1,500,000
DRAWN BY:	NMS/JPM
SERIES:	1 of 7

Natural Resources Engineering Co.
715-395-5680



Legend

- Enbridge Pipeline 6B
- River Centerline
- Major Road
- Division Boundary
- Containment Site
- Water Access
- Release Location
- Downstream Milepost

Enbridge Energy, Limited Partnership
Enbridge Line 6B MP 608 - Marshall, MI
Downstream Impact Area Response Plan
Figure 2: Division Designation Map

DATE ISSUED:	Aug 11, 2010
DATE REVISED:	
SCALE:	1:60,000
DRAWN BY:	NMS/JPM
SERIES:	2 of 7

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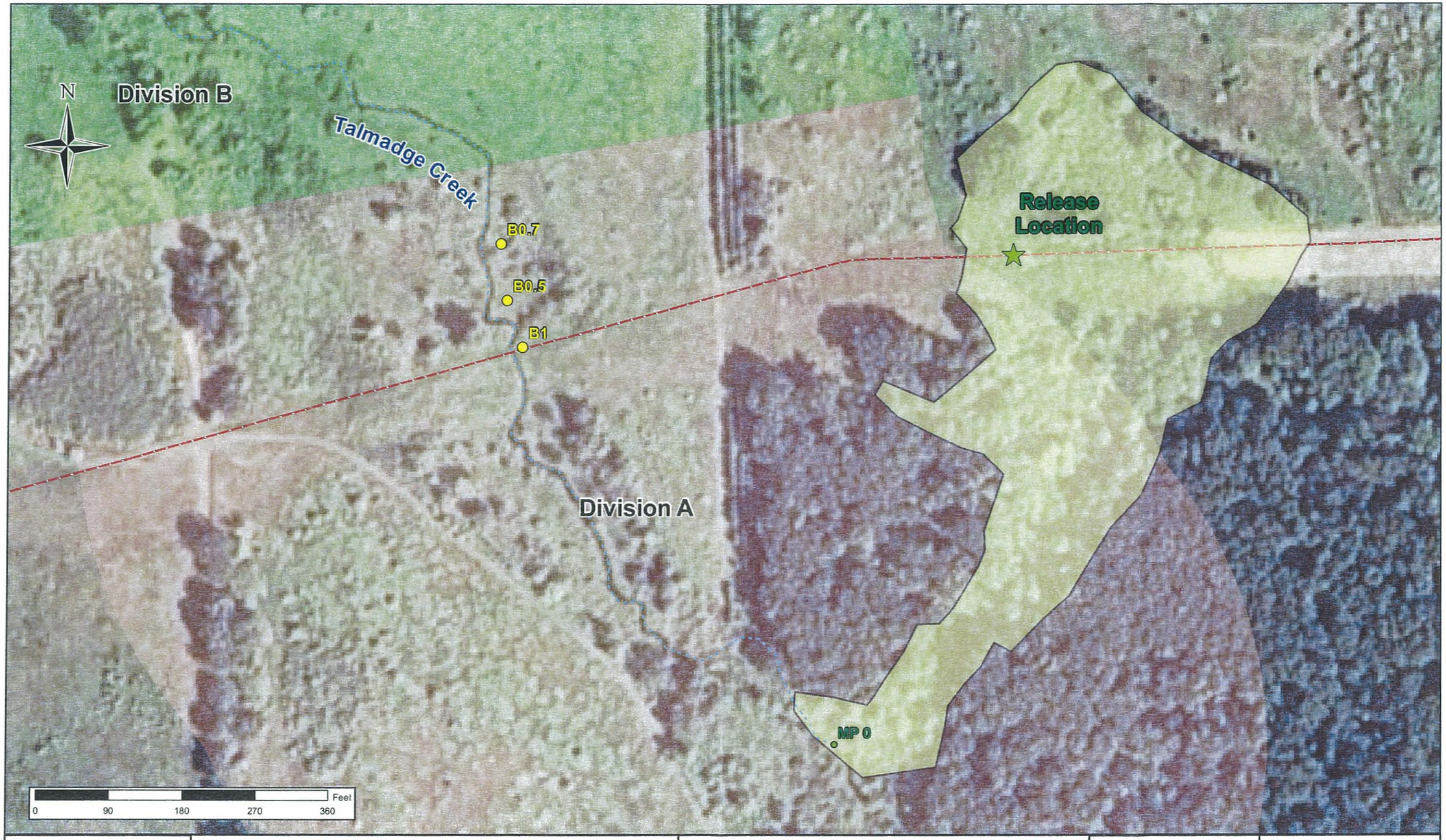

ENBRIDGE

Legend

- Enbridge Pipeline 6B
- River Centerline
- Major Road
- Release Location
- Containment Site
- Downstream Milepost
- Approximate Extent Of Oil

Enbridge Energy, Limited Partnership
Enbridge Line 6B MP 608 - Marshall, MI
Downstream Impact Area Response Plan
Figure 3: Source Area - Spill Release Area

DATE ISSUED:	Aug 11, 2010
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SCALE:	1:700
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SERIES:	3 of 7

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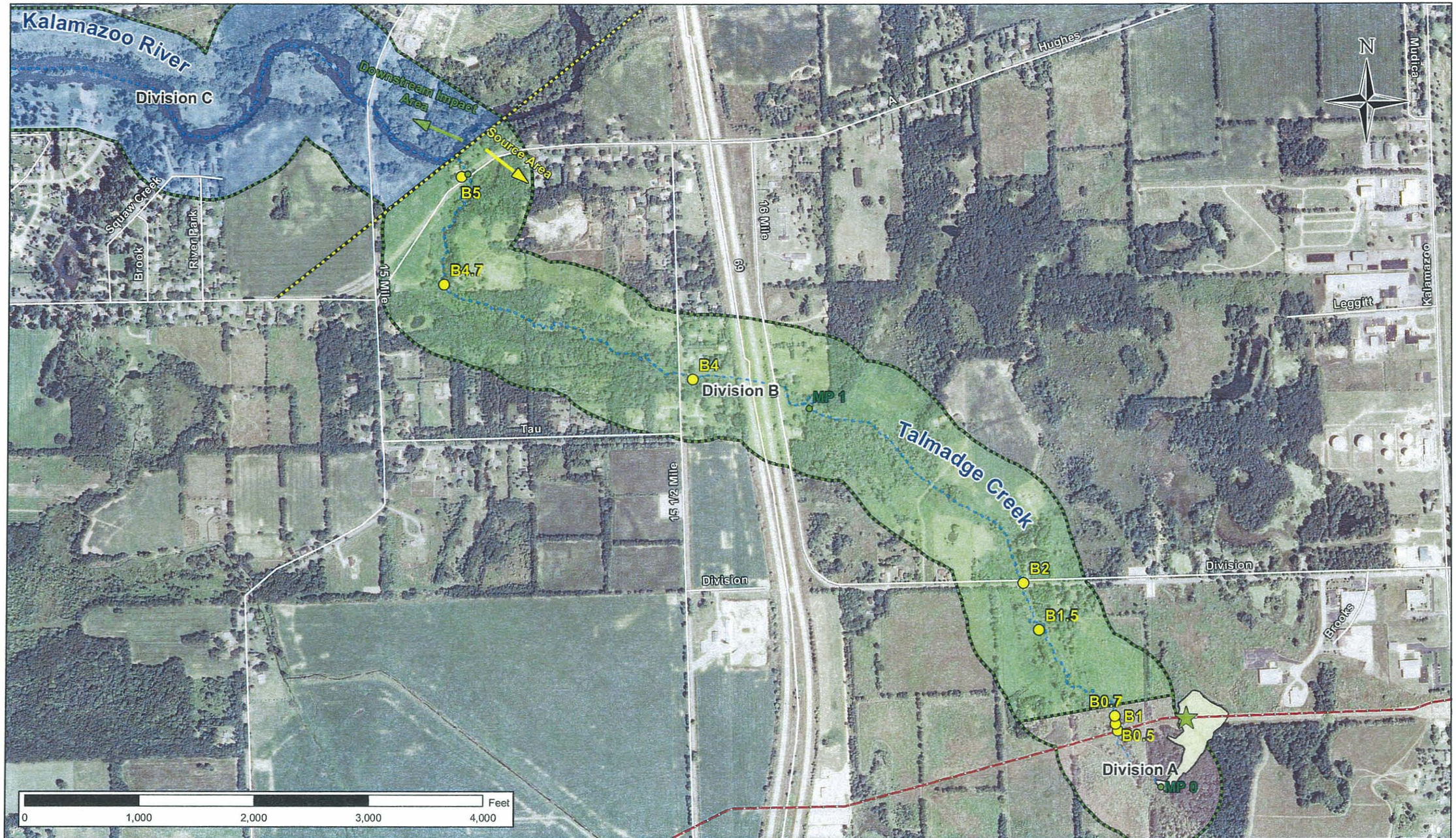

Legend

- Enbridge Pipeline 6B
- River Centerline
- Major Road
- Division Boundary
- Source Area
- Release Location
- Downstream Milepost
- Approximate Extent Of Oil

ENBRIDGE

Enbridge Energy, Limited Partnership
Enbridge Line 6B MP 608 - Marshall, MI
Downstream Impact Area Response Plan
Figure 4: Division B Map

DATE ISSUED:	Aug 11, 2010
DATE REVISED:	
SCALE:	1:5,000
DRAWN BY:	NMS/JPM
SERIES:	4 of 7

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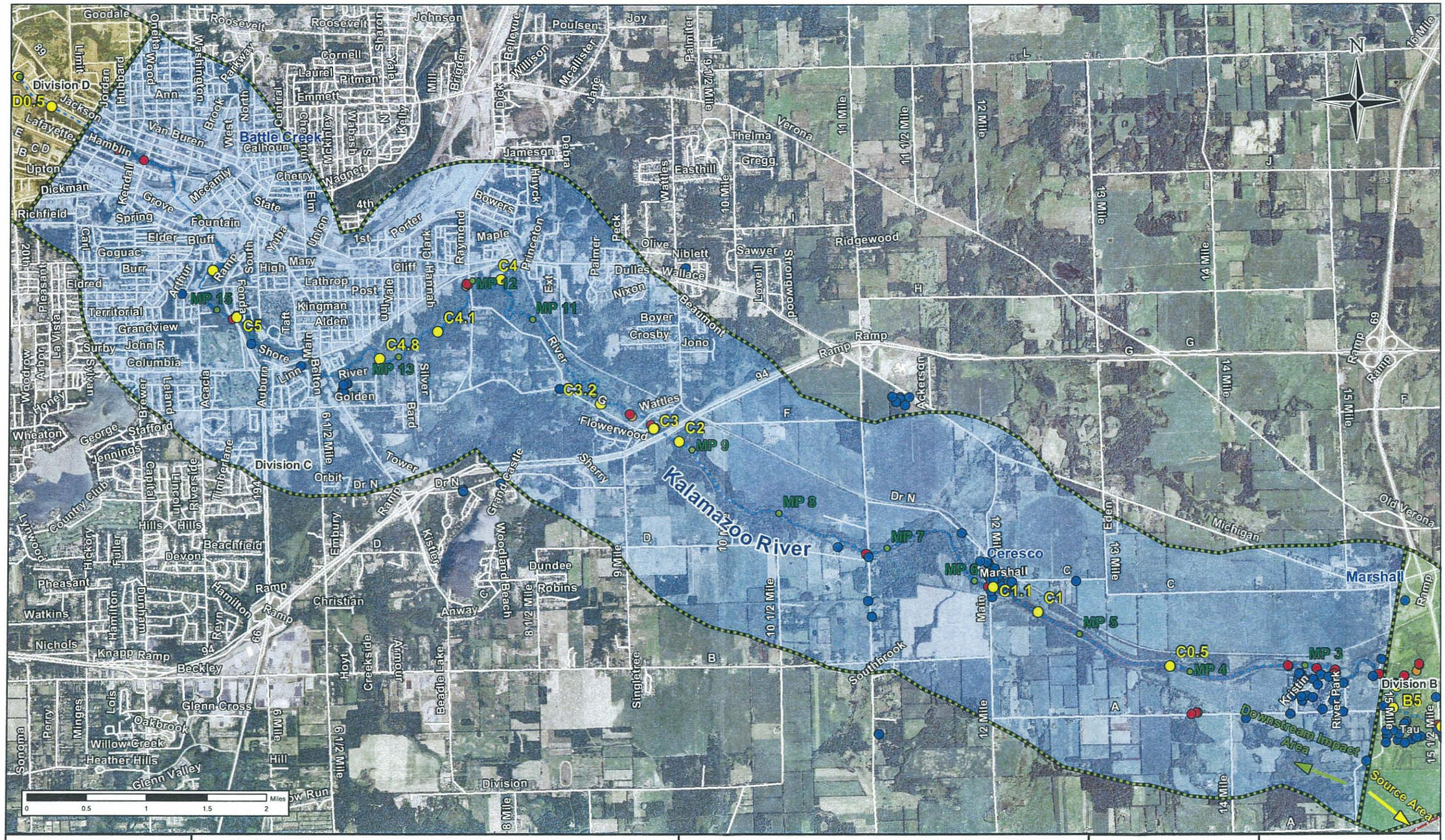

Legend

ENBRIDGE

Enbridge Pipeline 6B
River Centerline
Major Road
Division Boundary

Downstream Milepost
Containment Site (Boom)
Surface Water Sample

Potable Well
Sediment Sample
Soil Sample
Water Access

Enbridge Energy, Limited Partnership
Enbridge Line 6B MP 608 - Marshall, MI
Downstream Impact Area Response Plan
Figure 5: Division C Map With Sample Locations

DATE ISSUED:	Aug 11, 2010
DATE REVISED:	
SCALE:	1:25,000
DRAWN BY:	NMS/JPM
SERIES:	5 of 7

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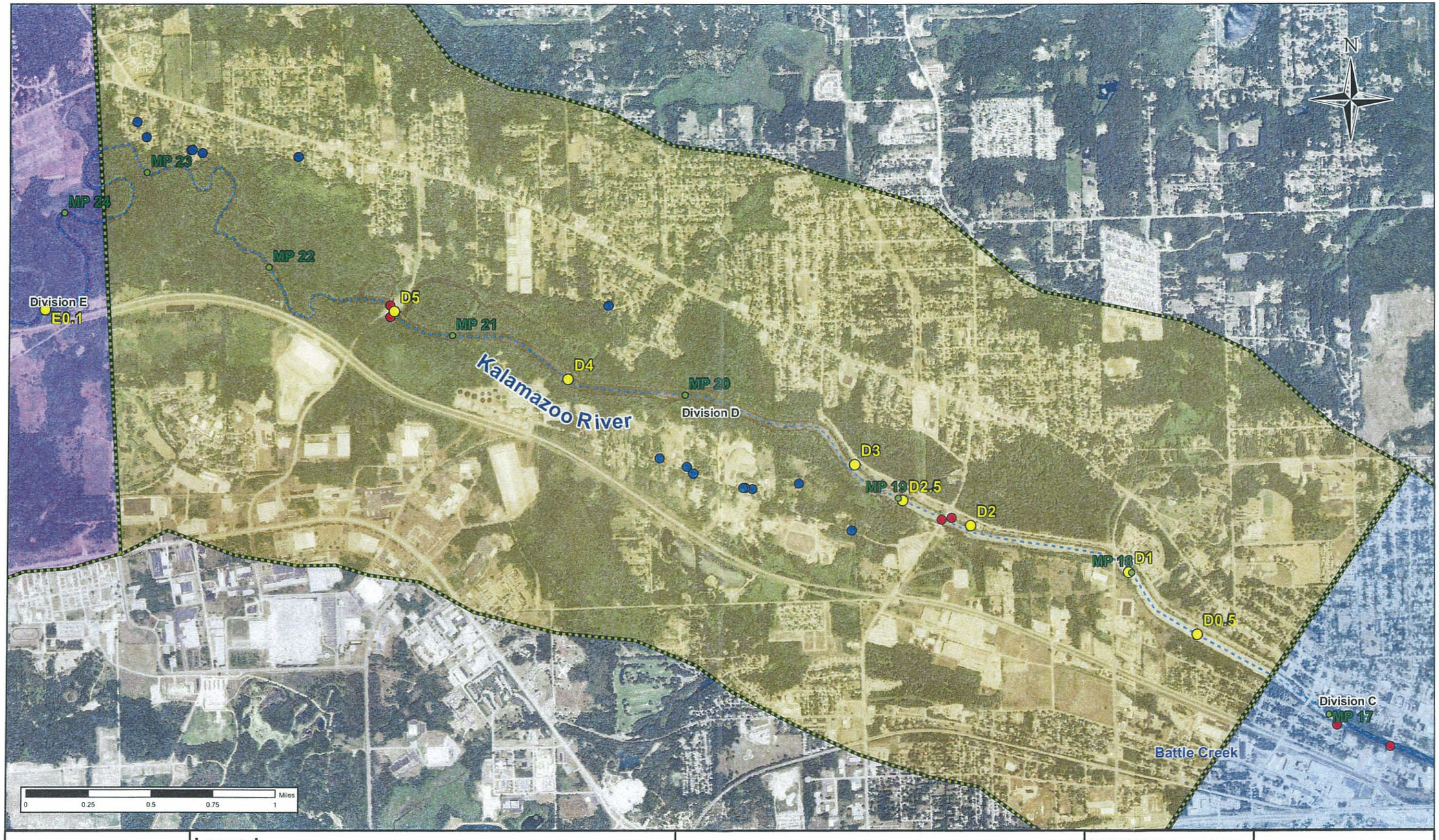

Legend

- Enbridge Pipeline 6B
- River Centerline
- Major Road
- Division Boundary
- Downstream Milepost
- Containment Site (Boom)
- Surface Water Sample
- Potable Well
- Sediment Sample
- Soil Sample
- Water Access

Enbridge Energy, Limited Partnership
Enbridge Line 6B MP 608 - Marshall, MI
Downstream Impact Area Response Plan
Figure 6: Division D Map With Sample Locations

DATE ISSUED:	Aug 11, 2010
DATE REVISED:	
SCALE:	1:12,000
DRAWN BY:	NMS/JPM
SERIES:	6 of 7

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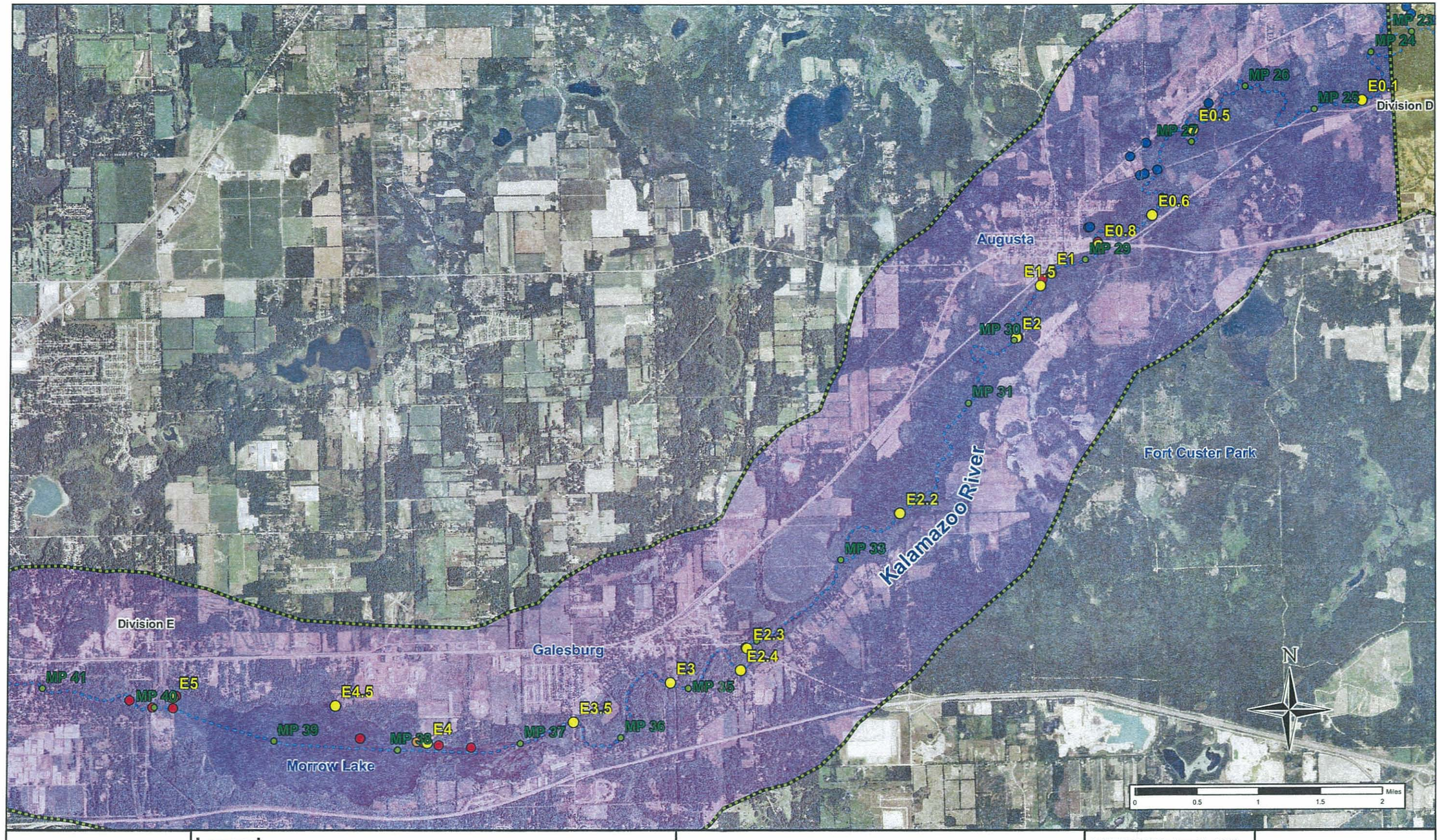

Legend

- Enbridge Pipeline 6B
- River Centerline
- Major Road
- Division Boundary
- Downstream Milepost
- Containment Site (Boom)
- Surface Water Sample
- Potable Well
- Sediment Sample
- Soil Sample
- Water Access

ENBRIDGE

Enbridge Energy, Limited Partnership
Enbridge Line 6B MP 608 - Marshall, MI
Downstream Impact Area Response Plan
Figure 7: Division E Map With Sample Locations

DATE ISSUED:	Aug 11, 2010
DATE REVISED:	
SCALE:	1:24,000
DRAWN BY:	NMS/JPM
SERIES:	7 of 7

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Attachments

Attachment A

Acronyms and Definitions

Attachment A
Acronyms and Definitions

Company – Enbridge Energy, Limited Partnership

DNAPL – Dense Non-Aqueous Phase Liquid – A with a Specific Gravity > 1.0

DBH – Diameter at Breast Height – a forestry term for the measurement of trees

Low-Pressure Water Wash – Water cleaning by spray or flow that does not cause removal of live foliage or erosion of soils. Ambient water is sprayed at low pressures (<50 psi), usually from hand-held hoses to lift oil from the substrate and direct it to the water's edge for pickup.

Floodplain - The flat or nearly flat land along a river or stream or in a tidal area that is covered by water in a flood.

FOSC – Federal On-Scene Coordinator

IAP – Incident Action Plan – prepared by the Environment Unit and Planning Section daily and used to support preparation of the shoreline response plan to be implemented by Operations.

LNAPL – Light Non-Aqueous Phase Liquid – A with a Specific Gravity <1.0

MDA – Michigan Department of Agriculture

MDNRE – Michigan Department of Natural Resources and Environment

Minimal Scraping – Minimal scraping is defined as manual removal of the oil and immediate surface, but typically removal of less than 1" of surficial soil. No mechanized equipment will be used for minimal scraping.

NCRS – National Resources Conservation Service

NOAA – National Oceanographic and Atmospheric Administration

NRDA - Natural Resources Damage Assessment

NREPA – Natural Resources and Environmental Protection Act

Operations – Personnel, both Company employees and contractors, under the purview of the Company, that is engaged in the response activities.

Primary Oiled Area – The area with visible oil and/or sheen that is either currently affecting navigable waterways and/or poses a threat of release of a visible oil or sheen discharge to navigable waterways.

Priority Activity – A response activity performed in a priority area.

Priority Area – Area where observed impacts are high, that are in close proximity to a receptor, or could have future impacts to downstream areas.

Response Actions – Those actions undertaken in the short term by the Company to remove and/or abate visible oil and/or sheen that is either currently affecting navigable waterways and/or poses the threat of release of a visible oil or sheen discharge to navigable waterways.

RPDIA – Response Plan for Downstream Impacted Area

Remediation – Those interim response actions undertaken to remove visible oil and petroleum products from media affected by the spill and located downstream of the spill source area. Specifically, this includes response actions to remove and/or abate visible oil and or sheen that is currently affecting navigable waterways or poses the threat or release of a visible oil or sheen discharge to navigable waterways.

Riparian – Areas adjacent to rivers and streams with a differing density, diversity, and productivity of plant species relative to nearby uplands.

River – The Kalamazoo River

SAP – Sampling and Analysis Plan

SCAT - Shoreline Cleanup Assessment Technique also known as **SCAT Assessment or SCAT Process** – A systematic approach that uses standard terminology to collect data on impacted areas, support decision-making for cleanup; reference HAZMAT Report No. 2000-1; Office of Response and Restoration, Hazardous Materials Response Division, National Ocean Service, National Oceanic & Atmospheric Administration, Shoreline Assessment Manual – Third Edition, August 2000.

SCAT Team –A team of qualified individuals using SCAT, organized and reporting to the FOSC and comprised of representatives from U.S. EPA (as the FOSC), MDNRE (as the SOSC and state NRDA trustee), NOAA or USFWS (as federal NRDA trustees) and Company (both responsible party Operations and NRDA) to assess impacted areas and recommend cleanup methods and priorities. At least one member should have sufficient expertise in wetland and aquatic ecology to evaluate the sensitivity of impacted areas.

SOSC – State On-Scene Coordinator

Trustees – Government officials who act on behalf of the public when there is injury to, destruction of, loss of, or threat to natural resources as a result of a release of a hazardous substance or a discharge of oil. Trustees include the U.S. Departments of Commerce, Interior, Defense, Agriculture, and Energy; state agencies; and Native American tribes. NOAA is the lead federal trustee for coastal and marine resources. MDNRE is the lead trustee for the State of Michigan.

USACE - United States Army Corps of Engineers

U.S. EPA – Unites States Environmental Protection Agency

U.S. FWS – United States Fish and Wildlife Service

Attachment B

Shoreline Cleanup Assessment Technique (SCAT)Team

Attachment B

Shoreline Cleanup Assessment Team

Downstream Impacted Areas will be assessed by the Shoreline Cleanup Assessment Team ("SCAT Team") and then recommended, approved remedial responses will be implemented. Aerial photography and visual surveys will be conducted on a regular basis during the product recovery efforts to document impacted areas downstream of the Source Release Area.

The sequencing and scheduling of the recommended response methods, including bank and sediment removal processes, if necessary, will be determined after the SCAT Team Assessment and SCAT Team recommendations are completed. A summary of the SCAT Team Assessment for this spill is described below.

SCAT Team Assessment

SCAT Teams will access downstream impacted areas, including river banks, wetlands, flood plains, and marsh areas, and other areas as appropriate and make recommendations on clean-up methods to be used, including priorities. In addition to the methods and techniques identified in Tables 17, 23, and 25 in the "Inland Oil Spills, Options for Minimizing Environmental Impacts of Freshwater Spill Response" (June 1994), any available new technologies, best practices, and lessons learned from completed or on-going SCAT Team recommended response methods will be assessed for specific environments or habitats similar to those partially or completely remediated. It is anticipated that the following techniques in conjunction with response methods recommended by the SCAT Teams will be the main methods used: low pressure rinsing, vegetation removal, vegetation and soil removal, and sediment removal.

The objective of the SCAT Team Assessment is to conduct a detailed assessment of downstream areas and document downstream conditions to facilitate clean-up and identify response methods, and efficiently and effectively deploy clean-up crews, evaluate and document shoreline conditions and provide clean-up recommendations and priorities to Operations. The SCAT Team Assessment will provide guidance to Operations to complete recommended response methods in an expedited manner to minimize the time oil remains present on the land and water.

The primary objective of the SCAT Process is to provide operational support. The SCAT Process is a systematic approach that uses standard terminology to collect data on Downstream Impacted Areas and support decision-making for Downstream Impacted Area response activities. SCAT Team surveys are also used for:

- Development of treatment or response activities recommendations;

- Development of treatment or endpoint criteria;
- Net environmental benefit analysis;
- Post-treatment inspection and evaluation;
- Provision of long-term monitoring; and,
- Natural Resource Damage Assessment.

The SCAT Teams will provide information in accordance with recognized shoreline assessment forms for the bank and in-river areas, wetlands, floodplain areas, and marshes. Information will include, if applicable, but may not be limited to: development of response methods and endpoint criteria. Data collected by SCAT Team will be used to develop downstream impacted area cleanup plans intended to maximize the recovery of impacted habitats and resources, while minimizing the risk of injury from response efforts. Consideration will always be given to:

- Extent and duration of environmental impacts if the oil is not removed;
- Natural removal rates;
- Potential for remobilized oil to affect other sensitive resources; and
- Likelihood of response activities to cause greater harm than the oil alone.

As part of the process SCAT Teams shall consider state and federal threatened and endangered species during oil removal response actions, as well as species and habitats of special concern or management interest by MDNRE or the U.S. Fish and Wildlife Service. SCAT Teams shall be alert to new occurrences of species and habitats of special concern and shall immediately notify the U.S. Fish and Wildlife Service upon discovery. U.S. FWS has sensitive environment GIS data available for use to assist in the effort.

The SCAT Team assessment segments are expected to align with the existing boom deployment segments currently used by Operations (Figures 3, 4, 5, 6, and 7). The area to be assessed extends from the Source Release Area (Figure 3) to the entry of the Kalamazoo River into Morrow Lake (Figure 7). The SCAT Team Assessment segments are expected to be aligned with the existing segments as follows:

Existing Segments	Segment Length in Miles (Shoreline)
Division A – MP- 0	N/A
Division B – MP 0.0 -1.8	1.8 (3.6)
Division C – MP 1.8 – 16.6	14.8 (29.6)
Division D – MP 16.6 – 22.5	5.9 (11.8)
Division E – MP 22.5 – 38.5	16 (32)

Further assessments may be required

Based-on the SCAT Team Assessments, along with the recovery phase aerial photo documentation and visual inspections, those areas showing where free oil or sheen is evident will be prioritized based on location and volume, and then addressed. The SCAT Team will recommend priority and determine appropriateness of disturbance impact as a result of recommended response methods.

Phased Approach:

SCAT Team Assessment of Downstream Impacted Areas will be conducted to document extent of impact and determine appropriate response activity and will follow a phased approach. Phase 1 will target assessment of potentially impacted areas that are accessible by boat. Phase 2 will target assessment of those areas such as floodplains where impacts cannot be fully delineated and characterized through boat-based surveys alone.

The geographic extent of Phase 1 surveys will include the river banks and associated emergent marshes and other wetlands along the Kalamazoo River from the confluence of Tallmadge Creek downstream to the head of Lake Morrow. If necessary, the extent of Phase 1 SCAT Team surveys will be extended downstream until the maximum extent of shoreline impact has been delineated. Specific methodology for conducting Phase 1 is detailed below.

During the conduct of Phase 1 surveys, floodplains, forested wetlands and other habitats for which the inland extent of oiling cannot be completely ascertained from water-based surveys will be identified for follow-up surveys conducted in Phase 2. Specific methods for Phase 2 floodplain response activities assessment surveys are currently under development; however, it is anticipated that Phase 2 surveys will be performed on foot.

Team Composition:

A SCAT Team Coordinator will be designated to manage SCAT Teams and coordinate synthesis of field data and information flow for use by the Environmental Unit and Planning Section to support the daily Incident Action Plan (IAP). The information and response recommendations generated will be used by the Planning Section to develop one or more shoreline cleanup plans, which in turn will be implemented by the Operations Section.

Each shoreline assessment team will be comprised of representatives from U.S. EPA (as the FOSC), MDNRE (as the SOSC & state NRDA trustee), NOAA or USFWS (as federal NRDA trustees) and Company (both responsible party Operations and NRDA). Every effort will be made to keep the composition of each team consistent to insure continuity in descriptions of the extent and degree of impacts and reporting.

The Company will be using ENTRIX, Inc. personnel as the company's representatives on SCAT Teams. Qualifications of these individuals regarding wetland and aquatic expertise will be provided to the U.S. EPA.

Number of Teams:

SCAT Team Assessments will initially be performed by two teams working opposite sides of the river. Each team will contain the representatives identified above. Due to the size of watercraft dictated by river conditions, it is anticipated that each team will require two flat-bottom boats in the 12- to 16-foot range. Phase 1 SCAT Team Assessments will progress from upstream to downstream.

Personnel Resources:

Each primary group (Company, U.S. EPA, MDNRE, NOAA and USFWS) will designate a SCAT leader who will acquire and coordinate the necessary staff resources from their agency/group. In addition, the SCAT leaders will meet daily with the SCAT Coordinator to identify the next day's SCAT Team plan.

Schedule:

Phase 1 SCAT Team surveys began on Sunday, August 1, 2010. An informal training and calibration session will be conducted in the field prior to beginning actual surveys. It is presently anticipated that Phase 1 SCAT Team surveys will require 2-3 days for completion. Phase 2 surveys will be initiated upon completion of Phase 1 and approval of a floodplain assessment plan.

Methodology:

Phase 1 SCAT Team surveys will be performed by boat. Each river bank will be assigned to one team. As the shoreline is viewed from the boat, visual observations related to oiling will be recorded on the shoreline assessment form as the teams work downstream. The forms are designed to record oiling information by zone. For purposes of this assessment, a zone is defined by a visual change in the degree or extent of oiling or habitat type, or the presence of a side channel or island (see below). This approach will result in the delineation of unique combinations of habitat type and oiling characteristics. Primary and secondary habitat types will be noted on the assessment form (using "P" or "S", accordingly). Information collected on degree of oiling will apply to the entire primary habitat area. Waypoints will be recorded at the beginning and end of each zone, and a track log will

be continuously recorded. Horizontal distance of oiling measured perpendicular to the shoreline will be recorded. If the horizontal distance of oiling from the shoreline is greater than can be visually ascertained, the zone will be flagged for further investigation during Phase 2.

Islands and side channels will be treated as a separate zone. As such, waypoints will be recorded at the beginning and end of a side channel, prior to and after circumnavigating an island, or at a change in habitat type or degree of oiling.

In order to estimate the extent and degree of shoreline oiling the following informational components will be collected:

Areal extent of oiling. The aerial extent of shoreline will be estimated based on the polygon defined by shoreline length of the zone (calculated from the shoreline length between the zone waypoints collected in the field) and the field estimate of the distance (width) of horizontal oiling perpendicular to the shoreline.

Degree of oiling – Degree of oiling will be determined by:

- visually estimating the percentage of the areal extent of shoreline that is covered with oil and the thickness of that oil (film, stain, coat, or cover), and
- visually estimating the height of oiling on vegetation and the percentage of the area below maximum height that is oiled.

In addition to this information on shoreline oiling, information will be collected on oil or sheens observed on water, including the percentage of area covered within a zone and a characterization of the oil or sheen (biological sheen, silver, rainbow, brown, black, tarballs).

Equipment:

Each team will be equipped with the following:

- Two flat-bottom jon boats (12- to 16-foot range) with outboard motors and operators
- Personal protective equipment, including personal flotation devices.
- SCAT Assessment forms and ink writing utensil
- GPS unit
- Digital camera with date and time stamp for photo documentation
- Opportunistic sampling equipment
    - Wooden pole or stick
    - Biota sampling jar or aluminum foil and plastic Ziploc bags
    - Powder-free nitrile gloves

- Cooler with wet or blue ice
- Paper towels
- Trash bag
- Teflon tape
- Permanent marker

Impacted Area Preparation

Those downstream mpacted areas found to be adversely impacted may require a single method or a combination of techniques and methods, as recommended by the SCAT Team, including but not limited to, those identified in Tables 17, 22, 23, and/or 25 of the "Inland Oil Spills, Options for Minimizing Environmental Impacts of Freshwater Spill Response" (June 1994). SCAT Team recommendations may include:

Response Method – Heavy Oils	Small Rivers & Streams	Gravel Habitats	Wetland Habitats
Booming – Deflection/Exclusion	A	NA	
Skimming	A	NA	
Booming – Containment	A	NA	
Vacuum	A	B	
Sorbents	A	B	A
Barriers/Berms	A	NA	NA
Physical Herding	B	NA	NA
Natural Recovery	C	B	B
Debris Removal	B	A	B
Vegetation Removal *	B	NA	C
In-Situ Thermal Treatment **	B	B	B
Manual Oil Removal/Cleaning	B	A	C
Mechanical Oil Removal	C	C	D
Low-Pressure, Cold Water Flushing		B	B

A = May cause the least adverse habitat impact.

B = May cause some adverse habitat impact.

C = May cause significant habitat impact.

* Any vegetation removed will be managed as required by the approved Waste Treatment, Transportation, and Disposal Plan.

** In-Situ Thermal Treatment is not intended to result in the burning or incineration of soils.

[Table modified from Table 17. "Relative environmental impact from response methods for SMALL RIVER and STREAM environments."]

At this time no other response methods beyond those provided in the above table are anticipated, for example, the use of dispersants and other chemical agents.

Other resources will be consulted through the SCAT Process to best determine response and clean-up strategies, for example, on options to treat wetland soils and vegetation. This will include the document: NRCS Interim Conservation Practice Standard 772 Guidance "Organic Sorbents for the Remediation of Oil-Contaminated Soils".

In addition to the methods and techniques identified in the table, any available new technologies, best practices, and lessons learned from completed or on-going SCAT Team recommended response methods will be assessed for specific environments or habitats similar to those partially or completely cleaned-up.

The sequencing and scheduling of the bank and sediment removal process will be driven by decisions made in the field based-on information to be available after SCAT Team Assessment and SCAT Team recommendations, and existing site conditions as they are identified during the SCAT Team assessment described in this work plan.

Attachment C

Phase I Shoreline Cleanup Methods

Attachment C

Phase I Shoreline Cleanup Methods

Kalamazoo River/The Company Spill

Phase I Shoreline Cleanup Methods

Date: August 10, 2010 (May be revised/updated, and new date provided)

The Company Contact: Joe McGaver (218-390-9254)

NOTE: This does not represent final clean up

Habitat Type or feature	**Cleanup Recommendation:** **Do not touch un-oiled vegetation**	**Phase 1 Cleanup Objective**
Low hanging limbs extending over and into the water	• Cut and bag branches 2" above oiling level	No oil observed on branches hanging over or into the water
Vegetated Bank	• Remove oiled vegetation leaving roots intact up to 50' from waterline; • Do not remove woody plants great than 2" diameter (as measured one foot above ground surface)	**Primary oil removal;**
Grasses, reeds, cattails, wetlands	• Remove oiled vegetation leaving roots intact up to 50 feet from waterline; • On soft surfaces, use pallets/plywood or other methods to distribute weight and minimize number of walk ways to reach oiled vegetation away from the river's edge; • **Do not tear out roots** • Area should be boomed during removal process • Use snares/pompoms for small pockets; • Low pressure/high volume rinse to direct oil to boom for collection	**Primary oil removal;** • If free oil extends beyond 50' from waterline contact SCAT Team for guidance. Do not enter. • SCAT Team will visit following removal to assess next steps

Habitat Type or feature	Cleanup Recommendation: Do not touch un-oiled vegetation	Phase 1 Cleanup Objective
Oiled debris	• Mobilize oil and capture w. boom or sorbent material before and during moving debris; • Manual removal of oiled debris • For large woody debris remove all visibly oiled material	**Primary oil removal** • Un-oiled large woody debris will remain undisturbed
Oiled Manmade Structures	• Manual removal using scraping or wiping with sorbents, • High pressure cold water wash	**Primary oil removal**
Aquatic vegetation holding floating oil [water lilies, grasses, etc.]	• Boom prior to cutting • Cut vegetation below water's surface, leaving roots; • Use snares to collect released oil; • Bag vegetation	**Primary oil removal**
Oiled mixed sand and gravel	• Boom prior to cutting • Low pressure/high volume flushing	**Primary oil removal**

Definitions:

Primary oil removal: removal of pooled oil and major sources of sheening

Phase 2: Additional cleaning to remove sources of sheen

Attachment D

U.S. EPA Comment Response Verification
(per U.S. EPA August 15, 2010 letter)

Attachment D

U.S. EPA Comment Response Verification
Enbridge Line 6 MP608
RPDIA
Marshall, Michigan
(per U.S EPA August 15, 2010 letter)

RPDIA Plan-Specific Comments

1. Section 8.3 has been modified to include that planting will incorporate native plant species along with non-invasive temporary cover crops.
2. Section 6.1.2 was revised to add "when necessary to access or cross areas of soft substrates, plywood sheets or other appropriate methods will be used to avoid compressing soils".
3. Section 3.1.1 was renamed from "Marshes" to "Riparian Zones and Stream Banks", as requested.
4. Section 6.0 has been revised to state that a quantitative monitoring plan will be submitted to the FOSC for approval prior to execution of such a plan.
5. Section 6.1.2 was revised to state that backfill of excavated areas will be with clean, weed-free top soil immediately following excavation around tree roots in the riparian zone.
6. Section 6.1.4 has been revised to state that trees larger than 2 inches diameter DBH will be preserved.
7. Section 6.1.6 has been amended to include the collection, cleaning, rehabilitation and release of live oiled animals.
8. The word "within" was removed from the first sentence of Section 8.1 as requested.
9. The definition of NREPA has been corrected in Attachment A as requested.
10. The reference to Table 22 in the third paragraph of Attachment B, page B-6, has been corrected to reference Table 23.
11. References to the Unified Command (UC) and/or Incident Commander (IC) in the RPDIA have been changed to reference FOSC.